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Textile World

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Tackling Textile Unemployment

EVEN the most confirmed optimists would hesitate to say that there will be no unemployment problem next winter. Opinions differ, of course, on its probable intensity, but most industrialists admit that it will represent a problem of no mean proportions.

As such, it demands thought, not next winter, but now.

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During the last year and a half, this subject has occupied public attention—at least as prominently as in any similar period of our history. Some of the thinking has been muddled, but much of it has been constructive.

However, we believe too much emphasis has been placed upon plans for geographical sections, rather than for industries.

Naturally, the problem within a community calls for local action to a certain degree. Similarly, an area as closely knit, economically, as New England for example, can profit by consideration of unemployment as it affects that particular section.

But there are certain problems tied up with specific industries, whether the plants be North, South, East or West, which demand consideration by that industry as a whole.

In the main, we do not believe that this type of thinking has been in existence. It is our opinion that organized industry has not done its part.

In the textile industry specifically, much of the house-cleaning undertaken in recent years has had as an important by-product, an improvement of employment conditions. Get an industry's output in better balance with its demand; inject more aggressiveness into its merchandising policies; disseminate sound cost principles—and the status of each worker will improve, as a result.

However, in these unusual times, and facing a continuation of at least some degree of sub-normal business in general, there would seem to be a demand for concerted thinking, by textile manufacturers, on the specific problem of employment.

Just how far can mills go in spreading their production more evenly over the 52 weeks of the year? What should be the policy as to more general utilization of part-time workers? What is the effect of the night shift; and what has been the effect of its partial elimination in certain divisions?

These, and other questions, should be considered, not from the standpoint of American business in general, nor as they affect any one community or section, but in their relationship to the progress of the textile industry and its workers.

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For such consideration, we do not recommend ballyhoo meetings. We suggest serious conferences on the part of the organizations representing the various branches of the industry, followed by definite committee action and recommendations.

We regard this type of activity, not only as a responsibility, but as the greatest opportunity for constructive effort which organized industry has at this time.

The Week in Textiles

as Reflected in This Issue

General

How Sears Roebuck Aids Textiles
Extensively equipped and competently administered textile laboratory at Sears, Roebuck & Co. headquarters in Chicago, constitutes virtually an advisory service for textile manufacturers who specialize in volume output of moderate-priced lines, and helps to develop new fabrics. *(page 34)*

Replacement of Equipment
To assist him in anticipating and deciding upon the replacement of equipment, a prominent builder of sewing machines has devised a simple form which may be readily adapted for use in textile mills. *(page 37)*

Canada's Textile Industry Growing
Canada's textile industry has made swift strides in recent years, and now is the fifth industry of Dominion, according to TEXTILE WORLD correspondent. *(page 39)*

Cotton

Efforts to Cut Surplus
To meet the cotton crisis the Farm Board recommends destruction of one-third of the growing crop. The impracticability of making such a plan effective is commented on editorially. *(page 23)*

Cotton Prices for 75 Years
High, low and average prices for cotton during each crop season back to 1855 are given. Spot prices current lately have been under-cut in only four other seasons of this period. *(page 22)*

New Low for Cotton
Cotton went to lower prices than have been seen for over 30 years early this week as result of Government estimate of crop at 15,584,000 bales. New problems and new opportunities come in the wake of this decline. *(pages 22 and 55)*

Leno Weave
More general adoption by women of cotton dresses and suits has resulted in the creation of new designs. Descriptions are given of leno weave, lacy tweeds, rickrack mesh, and other interesting constructions. *(page 24)*

Approves Labor Policies
President Hoover's Emergency Committee on Employment through Mr. Croxton, its acting chairman, congratulates the cotton textile industry through the Cotton-Textile Institute on its labor policies, especially night work elimination and the 55-50 plan. *(page 27)*

Spinning Cotton Yarn
Results are given of an Arkwright test to determine the relationship between yarn breaking strength and end breakage on the spinning frame. *(page 36)*

Defective Hosiery Yarn
While irregularity in the strength of cotton hosiery yarns may be due to insufficient twist, the defect often can be traced to other causes. Nine items are listed, which if carefully checked, should eliminate the difficulty. *(page 40)*

Yarns Are Inactive
The shock of cotton's break reduced trading in yarns to the disappearing point. Some few sales at sharp cuts were reported but for the most part spinners are not in a hurry. *(page 55)*

Cotton Goods Reflect Break
Reflecting the raw cotton break, cotton goods prices softened; later merchants refused to quote. Orders are withheld, pending stabilization. *(page 61)*

Wool

Pressed Felt
Modern practice in the manufacture of pressed felt is described and illustrated. *(page 28)*

Wool Market Steady
Wool holds firm and trading moves steadily. Demand has spread from the fine to coarser sorts of wools. *(page 57)*

Yarns Are Strong
Worsted yarns are strong in price though no general advance has yet been made. Buyers are feeling out the market on fall deliveries. *(page 57)*

New Goods Prices Lower
Prices for wool goods staples shown in the first 1932 openings are slightly below this season. The reduction is less than many had expected. *(page 61)*

Should Curtail Worsted Output
Curtailment of worsted goods output for fall should be carefully restrained, writes Dr. L. H. Haney, in TEXTILE WORLD Analyst, who adds that retail consumption this season is unlikely to

The Textile Outlook

RECESSION of cotton prices to levels not seen for over 30 years was the feature of the week in textile circles. Statisticians and merchants have no hopes for any immediate recovery. Rather there is belief that when the weight of the crop comes on the market there may be further decline. Other textile raw materials show no sympathetic trend—wool and rayon are firm and only minor fluctuations are found in silk. The long-term outlook suggests broader consumption as prices decline, but for the time being primary market trading in cottons has been throttled. For their best advantage mills should follow rather than try to lead consumption and consequently even further curtailment is the best answer to the problem put up to them. Wool goods sales are tapering off and the earliest lines have been put on the market for spring 1932 at prices said to show small cuts from current levels. Knit goods movement is irregular. With a bumper year behind them bathing suit mills are preparing for 1932 openings in September. Silk goods sales improve and raws are fairly steady. Thrown and spun silks are quiet.

be large enough to assimilate heavy production. Notes recent lull in buying, but admits cloth prices likely to show temporary firmness with yarns also strong. *(page 51)*

Knitting

Result of Uneven Yarn

Bars in a knitted worsted fabric are shown to be due to uneven yarn and not to faulty dyeing or uneven tension in knitting. *(page 40)*

As to Hosiery Prices—

Hosiery market looks for a possible advance in unbranded lines next month —if raw silk rises; branded lines are expected to remain "as is." *(page 62)*

Underwear Mills Hopeful

With winter underwear sales still very backward, mills hope for a substantial pick-up at the end of the month. *(page 62)*

1931 Swimsuit Volume "Enormous"

Manufacturer admits swimsuit trade did "enormous business" this year—but don't ask him about the profit margin! *(page 62)*

Silk

Raw-Silk Classification

Close conformation between American and Japanese methods of classifying raw silk is disclosed by a study of the Joint Committee on Raw-Silk Classification of the Silk Association of America, Inc., and the National Raw Silk Exchange. *(page 32)*

Silk Strike a Mixed Picture

Silk industry strike wanes in Paterson, N. J., district, where numerous settlements have been effected, but spreads in Providence, R. I., district, where new problems arise. Paterson believes crisis there is passed. *(page 38)*

Crepe-de-chine

Remedies are suggested for preventing streaks in crepe-de-chine which were occasioned by uneven warp stock, slack warp ends, and maladjustment of the loom. *(page 41)*

Silk Slips 5c.

Sluggish buying, due to strikes, heat and the cotton break, brought a 5c. drop in raw silk. Market quiet, but hopeful particularly in view of strength in Yokohama. *(page 59)*

All Quiet in Yarns

Mid-summer lull prevails both in spinning and throwing markets, with negligible demand from buyers all along the line. *(page 59)*

Rush on Crepe-Back Satins

Keen buyer interest in crepe-back satins and limited stocks are expected to make for backward shipments next month. *(page 61)*

Plan "National Wool Week"

INVITATIONS have been sent to the entire wool textile industry to attend a conference at the United States Chamber of Commerce, Washington, Aug. 18, at 10:30 a.m. to discuss among other matters plans for conducting a "National Wool Week" throughout the country. Representatives from all the branches including growers, manufacturers, cutting-up trades and department stores, have already signified their intention to attend.

The Wool Textile Industry has a manufactured product of two billion dollars annually. The central idea of "National Wool Week" is promotion of greater interest in wool materials on the part of the consumer.

Plans already under way for the campaign, which will be chiefly cooperative in character, involve newspaper and trade publicity, window displays, radio speeches, cooperation by Government officials, educators, and stylists, use of stickers and posters, social functions, openhouse arrangements and trade dinners.

The meeting on Aug. 18 is being sponsored by Frank E. Fitzpatrick, Washington representative, National Wool Marketing Corp.

Rayon

Rayon Crepe

Stains in rayon crepe are traced to a speck of tint which by accident got on the head of the steaming bobbin. Since the stain is removed in the boil-off, there is no danger of damage to the fabric manufactured from this yarn. *(page 40)*

Buying Ahead on Yarns

Manufacturers, apprehensive that further delay may mean backward deliveries, are covering on rayon requirements through both September and October. Rayon plants are running nearer full time to turn out the yarn that is required. *(page 59)*

Processing

Vat Dyeing

Uneven shades in vat dyeings on cotton piece goods are often due to conditions over which the dyer can have no control. Redyeing of fabrics merely to cover unevenness of shade entails needless expense and can be avoided by closer cooperation between the finishing plant, converter, and garment manufacturer. *(page 31)*

Run-Resistant Rayon

Irregular spots in a sample of circular-knit rayon of the run-resistant type are attributed to groups of loose and distorted stitches which were formed during the scouring or washing of the goods. *(page 41)*

Processing Tubular Knit Goods

Delustering, weighting, starching, or softening of tubular knit goods is facilitated with a new type of equipment which is designed to give constant control of the width and length of the fabric. *(page 48)*

The Business Outlook

BOUNTEOUS harvest, immemorial metaphor of prosperity, speels poverty instead, in this period of economic paradox. Government estimates of bumper crops smashed the hopes of farmers for better prices and smashed the Farm Board's stabilization schemes. But they raised McNary-Haugenism from a shallow grave; Congress will be put under the Farm Bureau lash again, to pass the equalization fee as it did twice before. The farmer must now pray for boll weevil, rust, drought, foreign crop failure, or adopt the Farm Board's sabotage proposal. Our index nevertheless rose, slight upward fluctuations in carloadings, steel, bank debits happening to coincide. Steel production probably hit bottom in July. There are hopes that autumn may drag the industry out of the mire. Retail sales of department store and mail order houses show further curtailment which the recently "adjusted" earnings of wage earners and farmers are not apt to strengthen. Germany appears the bright spot on the horizon with her difficulties alleviated sooner than expected. Those of Austria, Hungary, and England are less encouraging.—*The Business Week*.

Cotton Touches

30-Year Low

Following Large Crop Estimate

WITH spot cotton in New York at 6.75c. on Wednesday, the staple was at a low point which has been undercut in only five crop years since our available records start in 1855, the last time being over 30 years ago. The adjoining table gives the price records of 76 crop years; 1891, 1894, 1897, 1898 and 1899 are the four years referred to. On Thursday there was a rally and New York spots went to 7.00c.

The amazing forecast by the Crop Reporting Board of 15,584,000 bales indicated as of Aug. 1, as against the average guess of New York Cotton Exchange members of 13,800,000 bales, precipitated the break, although the market had sagged since the first of the month on growing belief in imminence of a large crop. Statisticians and many merchants expect no early recovery; rather they see further weakness when the weight of the crop comes on the market this fall. Our cotton report which gives details of the new situation will be found on page 55.

Of course the Government forecast is only on paper and much cotton in the field may be abandoned toward the end of the season unless the price improves. On Thursday a movement to get farmers to plow up every third row of cotton was started by the Farm Board, details being given on next page. The boll weevil and the weather may take their toll before the season ends. However, the market must take the situation as it is, rather than as it may be.

Cotton goods merchants have guided their course conservatively so far and avoided demoralization. Selling agents and mill men realize that they have before them perhaps the greatest opportunity ever faced to put their margins on a profitable basis by not giving way further in prices, which weakened last week in anticipation of the report. The statistical position at the end of July was strong, and, with fall demand coming on, there is still a real chance for profit by maintaining stability.

Authorities recognize that now is the time to hold cloth production in line with demand, and since the latter fell close to zero this week it would be suicidal for mills to speed up production. For the long pull, however, lower prices mean greater consumption, although such development may be retarded by general business conditions. It is worth note, however, that for the first six months of 1931 print cloth sales exceeded the similar period of 1930 by 33% and fine goods sales increased by 32%.

SEASON'S PRICES MIDDLING UPLANDS at NEW YORK

Season	High	Low	Average
1855–56	11.62	9.00	10.19
1856–57	15.87	11.62	13.50
1857–58	15.75	8.87	12.25
1858–59	13.50	10.62	12.10
1859–60	11.75	10.50	11.00
1860–61	22.00	10.00	13.00
1861–62	51.50	21.50	31.28
1862–63	92.00	51.00	67.22
1863–64	189.00	68.00	101.50
1864–65	182.00	35.00	83.37
1865–66	60.00	32.50	43.19
1866–67	42.00	25.00	31.56
1867–68	32.75	15.25	24.81
1868–69	35.00	24.25	29.00
1869–70	35.00	19.25	24.00
1870–71	21.00	14.75	17.00
1871–72	26.75	18.38	20.50
1872–73	22.25	19.13	18.16
1873–74	20.63	13.25	17.00
1874–75	17.13	14.50	15.00
1875–76	14.63	11.75	13.00
1876–77	13.25	10.88	11.75
1877–78	12.13	10.63	11.25
1878–79	13.13	8.75	10.88
1879–80	13.25	10.50	12.00
1880–81	13.00	10.50	11.38
1881–82	13.00	11.50	12.16
1882–83	12.88	10.00	10.63
1883–84	10.63	9.50	9.88
1884–85	11.50	9.75	10.69
1885–86	10.50	8.81	9.38
1886–87	11.43	9.13	10.00
1887–88	11.00	9.43	10.31
1888–89	11.31	9.63	10.43
1889–90	12.75	10.25	11.31
1890–91	12.25	8.00	9.88
1891–92	8.81	6.69	7.75
1892–93	10.00	7.06	8.43
1893–94	8.56	6.93	7.69
1894–95	7.38	5.56	6.19
1895–96	9.38	7.06	8.13
1896–97	8.88	7.06	7.69
1897–98	8.25	5.81	6.31
1898–99	6.63	5.31	6.06
1899–00	10.25	6.25	9.13
1900–01	12.00	8.06	9.25
1901–02	9.875	7.81	9.18
1902–03	13.50	8.31	10.25
1903–04	17.25	9.50	12.62
1904–05	11.62	6.875	9.125
1905–06	12.60	9.85	11.20
1906–07	13.50	9.60	11.48
1907–08	13.55	9.90	11.30
1908–09	13.15	9.00	10.44
1909–10	19.75	12.40	14.95
1910–11	16.15	11.60	14.56
1911–12	13.40	9.20	10.81
1912–13	13.40	10.75	12.30
1913–14	14.50	11.00	13.11
1914–15	11.00	7.25	9.10
1915–16	13.45	9.20	11.98
1916–17	27.65	13.35	19.28
1917–18	36.00	21.20	29.68
1918–19	38.20	25.00	31.00
1919–20	43.75	28.85	38.29
1920–21	40.00	10.85	17.89
1921–22	23.75	12.80	18.92
1922–23	31.30	20.35	26.30
1923–24	37.65	23.50	31.11
1924–25	31.50	22.15	24.74
1925–26	24.75	17.85	20.53
1926–27	19.20	12.15	15.15
1927–28	23.90	17.00	20.42
1928–29	21.65	17.65	19.73
1929–30	19.55	12.45	16.60
1930–31	13.15	8.25	10.44

(Down to 1930 quoted from chart compiled by J. Jos. O'Donnell & Co., Memphis and Boston)

Dr. Haney Figures 7c. Crop

"Now is the time for cotton manufacturers to hold their production to a minimum," urges Dr. L. H. Haney, editor of TEXTILE WORLD Analyst. "Cloth and yarn prices are too low now and need not fall in proportion to raw cotton, if production schedules are restricted. Inventory losses cannot be helped, but replacement margins can be improved.

"It has been obvious for some weeks that a bumper cotton crop is in prospect in important sections of the belt. The Government estimate is surprising only to the extent that it exceeds 15 million bales. The decline in fertilizer consumption was given too much attention as affecting this year's crop.

"With a world carryover of more than 9 million bales, we now have a prospective supply of well over 24 million bales. This would seem to suggest an average New York spot price for the coming season of around 7c.

"It would not be surprising to have the price under that figure during the marketing season, and rise above it in the spring. There is bound to be a sharp reduction in acreage and probably in yield next year, which will be discounted early."

Word From the South

The following summation of opinion current this week in the South is from TEXTILE WORLD's southern editor:

"The sharp decline in raw cotton Monday, following announcement of the Government crop estimate, dealt a stunning blow to the southern cotton farmer who faces the prospect of selling his crop at the lowest figure in over 30 years. It would be difficult to appraise in dollars and cents the actual loss to the cotton farmers of the South resulting from this week's decline, but some idea of this severe cash depreciation may be gained from the fact that a 1c. drop in raw cotton applied to a 15-million-bale crop amounts to $75,000,000. This does not take into account, of course, the inventory loss on the carryover which is faced by holders of cotton and mills alike.

"Considerable agitation has developed in certain sections of the South for Congressional action to abolish the Aug. 1 crop estimate by the Government. If this year's crop is much below the recent estimate, the chances are that Congress will face insistent demands from southern agricultural interests to have the Aug. 1 survey discontinued.

"Heavy rains in Georgia and South Carolina this week

tend to make the prospect for smaller production in those areas brighter. Southern cotton manufacturers generally were bearish on cotton before the crop estimate was issued, and while they did not expect such a large total figure, they were hesitant about buying ahead at price levels existing last week. However, with the prospect for a crop 750,000 bales in excess of the average for the last five years, coupled with the fact that a small crop almost inevitably follows a bumper crop, some manufacturers feel that this fall will be a good time to purchase two or three years' requirements."

Farm Board's Suggestion

Curtailment of cotton output by means of a concerted plan to plow under every third row of cotton now growing, was the drastic recommendation made to States in the cotton belt, by the Federal Farm Board following the break in price due to bumper crop prospect.

Following is abstracted text of telegram sent by the Farm Board to Governors of 14 cotton producing States:

"Government cotton report of 15,584,000 bales, if realized, provides total crop cotton of more than 24,500,000 bales against probable world consumption of American cotton this fiscal year of 13,000,000 or possibly 14,000,000 bales, leaving probable carryover one year hence of around 11,000,000.

"This condition occurs in spite of 10% reduction in acreage last spring. It has already resulted in drastic declines in cotton prices, which, if allowed to continue, may bring direct disaster to cotton producing States and indirect distress to the nation.

"Through serious world depression of last two years, Federal Farm Board has steadfastly attempted to protect cotton farmers and all who deal with them from price declines, such as have affected all industries, first, by 16c. loans to cotton cooperatives; second, by removal from market by Cotton Stabilization Corp. of 1,300,000 bales; third, by 90% loans to cooperatives last year. These efforts had some measure of success, but have been outweighed by continual excess production and continually increasing surplus.

"Board believes that time has now come when cotton producers themselves must be called upon for immediate and drastic action. Agricultural marketing act, section 1, paragraph 4, directs board to aid in preventing and controlling surpluses and in orderly marketing and distribution so as to prevent such surpluses from causing undue or excess fluctuation or depressions in price for the commodity. Section 5, paragraph 4, the board is authorized and directed to investigate conditions of overproduction of agricultural commodities and advise as to prevention of overproduction. *(Continued on page 66)*

The Cotton Crisis

ASSUMING the approximate accuracy of the Government's cotton report, the growers of the staple directly, and general business indirectly, are facing a major catastrophe.

Consequently one is disposed to give careful consideration to any remedial proposal no matter how radical. This is no time to quibble about the academic economics involved in the Farm Board's suggestion that every third row of cotton now growing be plowed under.

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However, it is impossible to ignore the question of practicability. Irrespective of the probable effect of such action, if taken, the fact remains that there is no agency in existence whereby the plan can be put into effect. Neither the Governors of the cotton growing States, nor any other group, can speak for a decentralized industry such as this branch of agriculture. Some few farmers would adopt the plan; others, and the majority, would figure to profit at their expense.

In view of this incontrovertible fact, the only course left open seems to be intensive effort, during the next few months, toward careful and intelligent marketing of both the new crop and the carry-over. In this, both the Farm Board and the Cooperatives can be helpful—and such work will be far more effective than would any attempt to destroy one-third of the crop.

In addition, a continued intensified drive must be made toward greater consumption of cotton products.

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Such a program will not bring prosperity to the cotton growing States, under present conditions. It will, however, if vigorously prosecuted, help to alleviate a critical situation.—*Editor.*

Leno Weave

Lends Itself to Attractive Styling

By William E. Shinn

Head of Weaving and Designing Division
Clemson College, S. C.

◆*The more general adoption by women of cotton dresses and suits has placed a demand on designers for new weave constructions. While it is true that leno weaves have been extensively used in mesh fabrics for dresses at various times, the present season has brought forth many designs showing considerable originality. The author presents descriptions and illustrations of several interesting weaves.*

THE fabrics which have met with favorable demand for cotton dresses and suits during the spring and early summer season indicate a growing popularity for cloths with pronounced woven textures. Generally speaking, the designer adds to the interest of his styles by (1) the use of yarns of inherent beauty and quality, (2) the use of color in the form of colored yarns or prints, and (3) the creation of new and interesting textures. One or more of these methods of styling are used in the construction of all fabrics, and at the present time there seems to be a definite trend toward increased uses for new and more varied weaves and textures.

Prominent among the many attractive cotton fabrics which have been leaders in popularizing cotton for womens' dresses and suits are mesh fabrics woven on the leno principle. As a rule, the leno weaves are more often used in the construction of net fabrics in which a crossing of the warp threads is necessary to prevent slippage of the threads on the filling. Some of the present-day dress fabrics, however, are woven from coarse yarns, which to a great extent close the mesh or open appearance normally characteristic of the leno fabric.

Fig. 1. Angora mesh

Angora or Brushed Mesh

An outstanding creation of the season is angora or brushed mesh. This fabric, an example of which is illustrated at Fig. 1, has been used largely for sports dresses and suits. It is an all-cotton leno fabric resembling very closely the jersey-knitted fabric in appearance, feel, and elasticity. The style illustrated at Fig. 1 has been woven from 25/2 cotton warp and 30/2 soft-spun filling. The fabric is piece dyed and brushed to raise a short, close nap on both surfaces. In finishing, the fabric decreases in width approximately 25%. This gives the cloth its elastic properties and accounts to a great extent for its resemblance to jersey. The softness of the filling causes the cloth to drape freely, and this quality, combined with its porosity, has made it popular for active sports wear.

An enlarged diagram of the weave used in constructing angora mesh is shown at Fig. 1*a*. In the drawing-in draft, Fig. 1*b*, two sets of bottom doups have been used. Two ground harnesses have been employed, while the doup ends have been drawn through the doups and passed under an ease bar just back of the harnesses instead of being drawn through a back harness. The use of two ease bars, one for each set of doups, serves the purpose of the back harness, which, if used in this weave, would not be raised. Fig. 1*c*, is the chain draft. Since there is an immediate change from open to cross shed in this weave, the ground harnesses will be connected to the jumper as indicated.

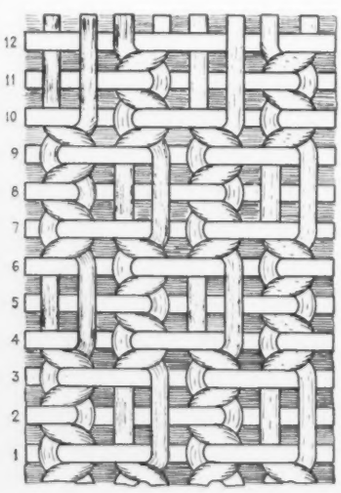


Fig. 1a. Diagram of the weave used in angora mesh

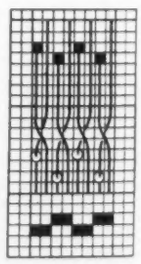


Fig. 1b. Drawing-in draft for angora mesh

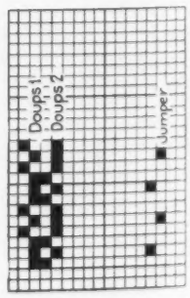


Fig. 1c. Chain draft for angora mesh

Lacy Tweeds

Another line of fabrics which has been prominently featured consists of the lacy tweeds. These cloths, in addition to being crosswoven, are constructed in part

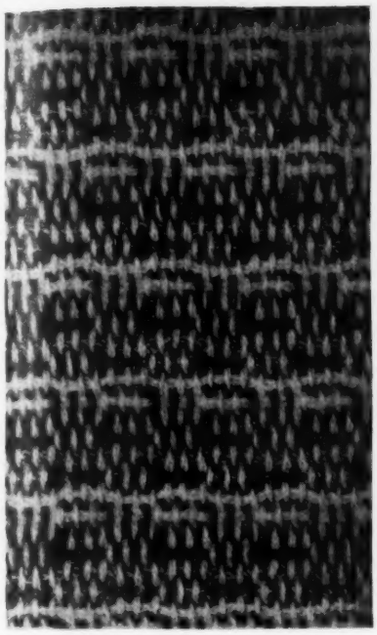


Fig. 2. Lacy tweed dress fabric

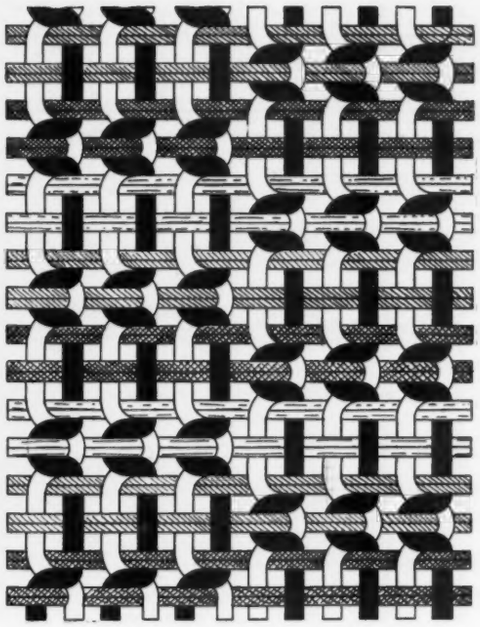


Fig. 2a. Diagram of the weave in lacy tweed

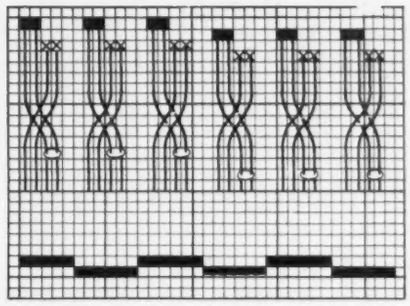


Fig. 2b. Drawing-in draft for lacy tweed

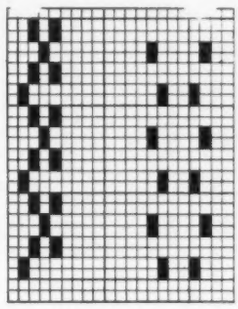


Fig. 2c. Chain draft for lacy tweed

from fancy yarns. The combination of rough yarns and cross structure gives the fabric a bold appearance highly characteristic of tweeds. Fig. 2 shows one style of lacy tweed in which a part of the filling is novelty yarn. Fig. 2*a*, is an enlarged diagram of the weave, repeating on 12 ends and 32 picks. In the drawing-in draft, Fig. 2*b*, two sets of bottom steel doups have been used. The drawing-in draft for a 16-harness dobby is shown at Fig. 2*c*. The ground harnesses are connected to the jumper motion to effect the direct change from cross to open shed.

Lacy tweeds have found a use in tailored suits for women, hats, bags, turbans, and sports dresses with colored trimmings.

Fancy Yarns for Tweeds

The fancy filling yarns used in these fabrics are mostly of the ratine or loop type. Where a small quantity of these yarns is required, it may be produced economically on ordinary twisters or spinning frames by properly manipulating the rolls, gearing, and guides. Fig. 3 is a photographic view of some novelty, seed, nub, or loop yarns which produce very pronounced textures in such fabrics as the lacy tweeds. These yarns are made in one or more operations of twisting and are composed of main threads, which form the bulk of the thread and give it strength, and the auxiliary thread for ornamenting the fancy or final yarn. Fig. 4 is a view of some fancy yarns in which two colors of nubs have been formed by introducing a second color in the form of an additional yarn.

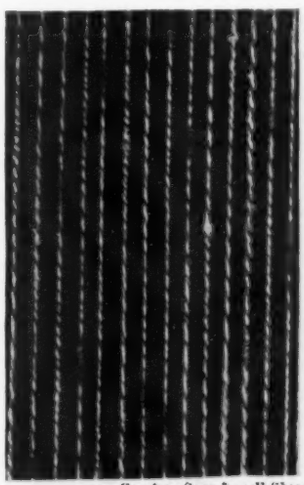
The composition of the fancy filling yarns used in the cloth illustrated at Fig. 2 is as follows: First operation, two ends of 30/1 blue main yarn, with one end of 30/1 auxiliary yarn. Second operation, 1 end of first-operation main yarn with one end of 30/1 blue auxiliary yarn.

The fancy white filling used in this fabric is the same as in the blue and white yarn except that the yarns used are all 30/1 white.

Rickrack Mesh

Another cloth which has created more than usual interest is rickrack mesh. This cloth, illustrated at Fig. 5, derives its character from its leno structure in which six ends of 40/2 mercerized yarn are crossed back and forth over a group of eight ground ends. The ground ends are woven 2/2 basket. The fabric weighs about 4 oz. per yard and at the same time is open and porous, due to the mesh construction. This has made it popular for sports dresses, suits, and clothing for general daytime wear. The cloth is woven from white yarns and piece-dyed in pastel colors. The dyes are fast and permit frequent launderings without damaging the appearance of the garment. While the side of the cloth shown in Fig. 5 is ordinarily regarded as the face, the reverse side is equally attractive; and garments may be fashioned with either side as the face.

The rickrack-mesh fabric shown in Fig. 5 belongs to a class of leno fabrics known as lace lenos. They differ from the two fabrics previously mentioned in that there is no immediate crossing of the leno or doup ends in passing from one side of the ground ends to the other. The pattern may thus be produced on top doups, although the draft, Fig. 5*b*, shows the pattern drawn on two sets of bottom doups. This method of drawing the pattern enables the crossing or top warp to be passed over the



Courtesy Saco-Lowell Shops

Fig. 3. Photograph of fancy nub yarns

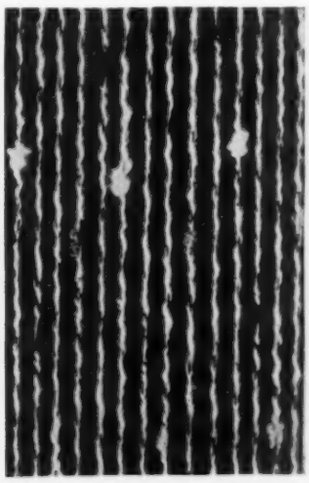


Fig. 4. Photograph of fancy yarns for ratines and tweeds

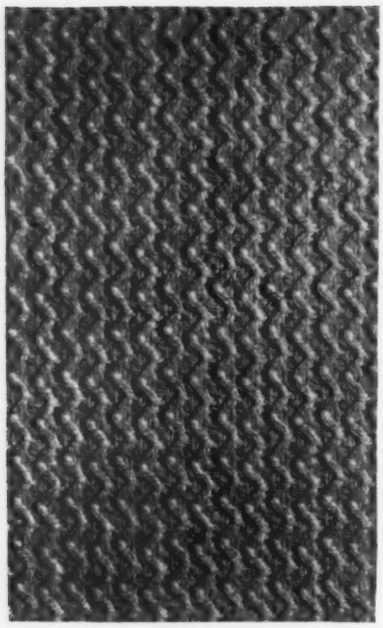


Fig. 5. Rickrack mesh for sports dresses and suits

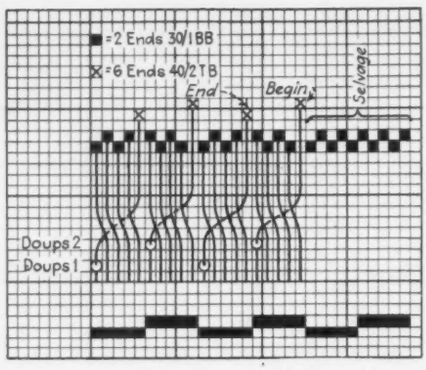


Fig. 5b. Drawing-in draft for rickrack mesh, face down in loom

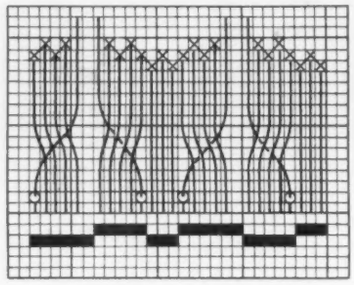


Fig. 6b. Drawing-in draft for open mesh

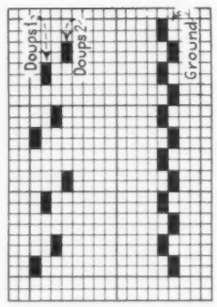


Fig. 5c. Chain draft for rickrack mesh

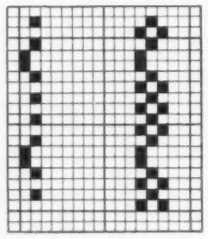


Fig. 6c. Chain draft for open mesh

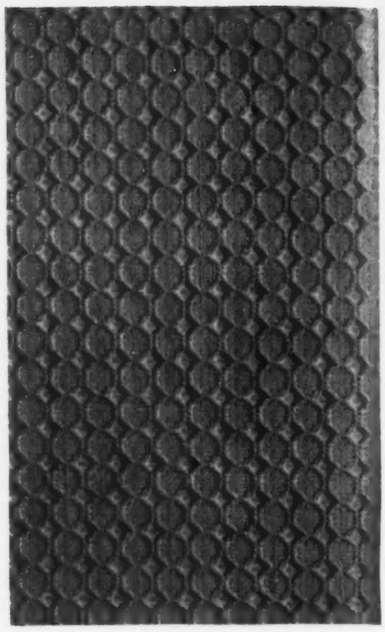


Fig. 6. Open-mesh dress fabric

easier; or if desired, the non-positive ease bar may be used, since the doup ends are never raised except by the doups. Fig. 5*c* is the chain draft for producing this fabric. No jumper is required for the ground business, since there is an interval of two picks between the open and cross picks of the leno weave.

The steel doup may be operated from either the top or bottom. The simplest method, however, is to draw the crossing warp for bottom doups, as this makes the formation of the cross sheds more positive and eliminates the additional springs and rigging which are required above the harness if the doups are inverted. The only disadvantage in weaving the cloth with bottom doups is that the weaver will not be able to see the face of the cloth as it is being formed.

While steel doups are much more durable than twine doups, the latter may be very satisfactorily used in the manufacture of rickrack and similar fabrics. In this case the doups are more efficiently operated from the top and the cloth woven face-up in the loom.

Open Mesh

Open mesh has been used largely in dresses, yokes, artificial flowers, trimmings, and similar materials. As will be seen by reference to Fig. 6, the fabric presents an open or eyelet effect similar to embroidery and lace, all of which have met with increased sales in supplying the demand for bold textures in cotton fabrics. Fig. *6b*, is the drawing-in draft for weaving this fabric face downward in the loom. Only one set of plain steel doups is required for this fabric. The cloth has a construction of 64 ends and 50 picks per inch. For ground warp, a 60/1 combed yarn has been used, with a single end of 18/3 for crossing warp and 50/1 for filling. The chain draft, Fig. 6*c*, is made for weaving open mesh face downward in the loom. This weave is also of the top-doup class and may be woven face up with either twine or steel doups. No jumper motion is required for the ground harnesses.

While it may rightly be said that the principle of leno weaves as used in these mesh fabrics for dresses is not new, the applications are none the less original. It is worthy of note that these fabrics are finished without any size whatsoever. The fabrics were constructed not to meet a price, but to satisfy the requirements of a specific kind of clothing. Their attractive appearance lies largely in the natural beauty of the cotton fiber, which has been preserved and enhanced in the finished fabric by wise use of color and interesting texture. These clothes have been supplied to the retail trade at prices ranging from 75c. to $1 a yard. Other creations in the cotton-goods trade have been equally as successful because designers and distributors have shown unusual interest in supplying the needs of the consumer of cotton fabrics.

PRODUCTION DATA FROM ANALYSIS

Name of Fabric	Angora Mesh	Tweeds	Rickrack Mesh	Open Mesh
Width	28 in.	36 in.	33 in	34 in.
Ends, per in	40	44	101.5	64
Dents, per in	20	11	7.25	16
Picks, per in	30	20	54	50
Take-up, bottom warp	8.77%	17.5%	8%	5.5%
Take-up, top warp	.....	10%	25.8%	26%
Shrinkage	28	10	21	13
Ends in pattern	4	24	16	11
Dents over-all	560	396	239	544
Dents in pattern	2	6	2	3
Patterns in warp	272	64 & 4 ends	116 & 14 ends	176
Width in reed	38.8	40	41.77	39
Reed number	14.4	9.9	5.72	14
Bottom warp	1152–25/2	834–20/2	1928–30/1	1936–60/1
Top warp	.....	770–20/2	1398–40/2	476–18/3
Filling count	30/2	7/1	30/1	50
Yards, per lb	4.70	2.81	3.91	5.51

Hoover's Unemployment Committee Approves Labor Policies *of Cotton Industry*

CONGRATULATION of the cotton-textile industry on the adoption of the nightwork-elimination program has been given on behalf of the President's Emergency Committee for Employment, Washington, D. C.

Fred C. Croxton, acting chairman of President Hoover's committee, has written to George A. Sloan, president of the Cotton-Textile Institute to the effect that the policies adopted by the cotton-textile industry are of assistance in the present unemployment emergency and form the basis on which to develop plans for more permanent stabilization of employment.

Mr. Sloan submitted a statement outlining and explaining the steps which had been taken in eliminating night work and shortening hours of labor, to which Mr. Croxton replied as follows:

"The steps taken by the cotton textile industry to discourage night work and long hours, under the leadership of the Cotton-Textile Institute, are an outstanding example of what an industry can do by voluntary action to 'set its house in order.' The policies which your industry has adopted have been of marked assistance in the present emergency and also will give you a working basis upon which to develop plans for a more permanent stabilization of employment.

"Your industry is to be congratulated upon the general adoption of this program. We hope that the very few mills which still persist in the uneconomic and anti-social policy of long hours and night work for their employees, will quickly fall in line with your far-sighted plan."

Mr. Sloan's statement, explaining in detail the steps which have been taken, is as follows:

"For a number of years, our industry has suffered tremendously from over-capacity and recurring overproduction. In some textile centers, the mills had become accustomed to running 120 to 138 hours per week. Moreover, until recently the practice of operating long night shifts was getting worse rather than better.

"As a short-time policy, mills could profit under this system at the expense of the industry as a whole. To operate machinery on long hours obviously means the production of more goods per machine or per plant, thus reducing the capital overhead on finished goods and giving a lower margin of costs. The adoption of this short-sighted policy by a large number of mills resulted in recurrent periods of over-production, price demoralization and under-employment.

"Consequently we have devoted much of our time to help promote sound production and merchandising policies and greater stability of employment. During the current depression, progress along these lines has been accelerated by the Institute's recommendation that night employment of women and minors should be discontinued, backed by conferences of the industry with officials in Washington. This reflected a growing feeling among leaders of the industry that women and children should be employed only on the day shift in cotton mills.

"Since operations in some elements of a cotton mill are a function purely of the women employees, this policy has resulted in a substantial elimination of night running. About 85% of the industry subscribed to the Institute's recommendation and close to 100% of the mills which approved the principle are now refraining from the employment of women and minors between the hours of 7 p.m. and 6 a.m. We hope this will mean the gradual stabilization of operations on the day shift, which experience tells us is adequate under normal conditions to meet the public's requirements. In the meantime, the complete discontinuance of night employment of women and minors, in each and every cotton mill throughout the United States, would result in steadier employment conditions. The violent fluctuations in output and, therefore, in employment, which have caused so much unrest and hardship among those periodically thrown out of work have been largely traceable to the steady procession of mills starting up night shifts prior to 1931, which would have been exceedingly difficult if men only had been employed.

"That this evil has been removed in mills representing 85% of all the cotton spindles in the country has gone a long way in meeting the situation. I have no hesitancy in saying that if the mills in the remaining 15% would do likewise, the cotton industry will have solved its principal employment problem both for the present emergency and for many years to come.

"Shorter hours of mill operation also have been a salient part of the program. Under our '55-50' policy, we have recommended that the working time of cotton mills on the day shift be limited to a maximum of 55 hours per week and on the night shift, where night shifts are operated, to 50 hours, and that all overtime operation, including the operation of mills during the noontime luncheon hour, be discontinued. This recommendation has been adopted by a preponderant part of the industry and has resulted in reducing substantially the running time in important textile centers where excessive hours of work previously prevailed. The long-time effect is to help prevent the recurrent periods of overproduction and under-employment.

"Although we hope these measures will be permanent in their effect, they are also helping the industry solve problems of the current depression. In addition, many of the cotton mills adopted temporary expedients, such as the spreading of work—part time employment as a substitute for layoffs—in order that they can take care of as many employees as possible during the emergency."

Blending, Carding and Forming in Manufacture of

Pressed Felt

By Frederick Albert Hayes

◆ *This is the first of a series of four articles on the manufacture of pressed felt. All of the processes used in producing this type of material will be taken up in detail, and the final article will deal with the problem of cost-finding in a felt mill. This series should be both interesting and instructive to men in any way connected with the felt industry and to wool men as a whole.*

Fig. 1. Mixing stock from the floor

FELT is a textile fabric which may be made without recourse to spinning and weaving operations because of the fulling ability of the wool or hair which is its essential ingredient. If felt could acquire some qualities now lacking, it would be used much more extensively because the manufacture is simple as compared with the processes required in a woolen or worsted mill. Paper is felt when considered as a sheet or fabric held together by the interlacing of its constituent fibers. In the same manner a cotton bat is felt, but unless some cement like rubber or other adhesive is added to stick the adjacent fibers together, there is no particular strength to the fabric. To get tensile strength in a cotton bat, wool must be incorporated in some degree and felted by suitable mechanical means. The first essential therefore of felt, in the ordinarily accepted textile meaning, is a content of a certain amount of wool or hair.

Mechanical and Punched Felts

A mechanical felt is not felt at all for the purposes of this article, as it is made from yarn on a loom, and through very heavy felting in a rotary fulling mill acquires the qualities desired. This is mentioned here to define the term, and also because sometimes a true pressed felt has a woven center which is merely incorporated into the felt in the course of its manufacture. This is not to be confused with mechanical felts such as tennis-ball covers, fuse cloth, papers-makers' felt, quern wringer felts, and billiard cloths, all of which are made on looms.

There is another kind of felt called "punched felt." This consists of burlap into which cattle hair has been punched on either or both sides. This article deals only with the manufacture of pressed felt, sometimes called flat felt.

Uses of Pressed Felts

Pressed felts are made in almost an infinite number of qualities, thicknesses, densities, widths, weights, and colors. Your automobile is full of felt used for window guides, mat linings, upholstery padding, gaskets, silencers, and washers. A piano couldn't exist without felt for hammers, dampers, and more than a dozen other felts for particular places and uses. Among the many articles demanded of the felt manufacturer are felt slippers (not so popular now), shoe linings (even less popular), refrigerator insulation, acoustic control, corn plasters, tailors' linings, pee wee golf greens (a bit of luck last year for the hair people), tannery-presses and machines, pennants and flags, polishing felts for glass, buffing wheels, box toes, shoe-tongue linings, chair pads, horse-collar pads, and many others. Style changes have the same important effect in the felt industry as in many others. Felt for slippers used to be in huge demand but is now replaced to a large extent by silk, satin, leather, or whatever milady demands for the season. The automobile has provided a life-saving outlet for various kinds of pad-felt, but to successfully supply this type of felt, the manufacturer has had to set up cutting shops to make the finished washer or gasket, etc.

Pressed felt is sold as all-wool felt, union or cotton-mix felt, and hair felt. It may be classified as pennant felt, slipper felt, linings and pads, piano felt, etc. Pad-felts are sold by the pound, while pennant, slipper, and lining felts are sold according to the weight per yard.

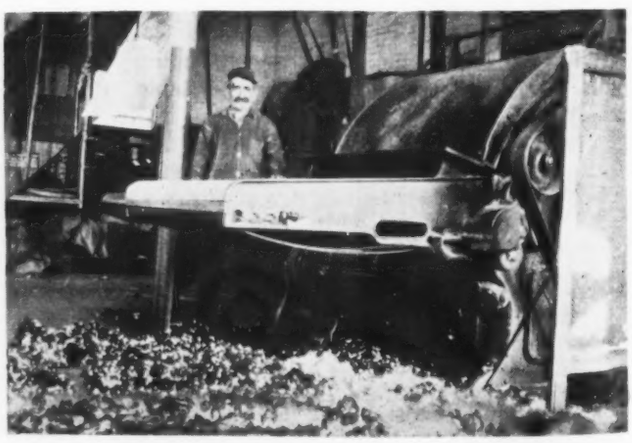


Fig. 2. Fearnaught picker for mixing stock

Depending on the facilities of the maker and the character of the felt, various widths and lengths are obtainable. In general, however, a pennant or lining felt will be 72-in. wide and 45 yd. long; a slipper felt will be 60-in. wide and 28 to 32 yd. long, while a pad felt varies from 72-in. to as low as 50-in. in width. Weights per yard for pennants and linings run from 12 to 18 oz. per linear yard. A good shoe felt will be up to 28 or even 32 oz. for an oxford, although in recent years there have been a good many slippers made from 18-oz. stock. Possibly that is one of the reasons felt slippers fell out of popular favor. Pad felts may be very heavy, weighing several pounds per linear yard. The consistency and density of these goods vary from soft and raggy goods to very heavy, strong, and tough pieces of cloth. There is one thing that should never happen to a piece of felt. It should never be fuzzy and present a napped appearance. The nearer a slipper felt approaches the smoothness of a piece of glass, the better the customer likes it.

Raw Stock Required

To meet this varied demand, recourse is made to almost every textile fiber. Whatever combination is used,

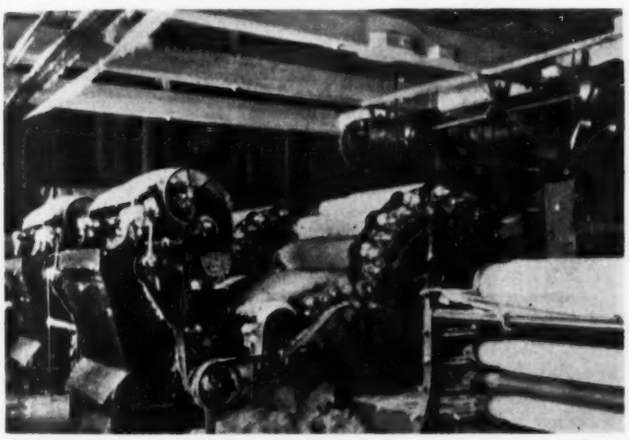


Fig. 3. Two breaker cards with Bramwell feeds doffing end of former apron

wool or hair must be present to allow its manufacture by felting. It is impossible within the scope of this article to more than indicate the raw stock used for particular purposes. Naturally, the finest articles such as piano felt require the finest of wool. The best slipper and pennant felts are also all wool, but where price enters into the picture, recourse is made necessarily to cheaper blends containing cotton and shoddies. Short wools are used; the best being the fine, four-to-six-months' Texas clip. Wools for felt manufacture have values in proportion to their fineness and fulling ability. For instance, a Cape wool of fineness and staple equal to a Texas wool does not have as desirable felting qualities and therefore is not worth so much to the felt-maker. In general the wool stock used is covered by the following list, which shows their felting qualities in decreasing order: Texas (short clip), Cape, California, Australian, Territory, French noils, Bradford noils, card waste, garnetted stock, and wool shoddies.

The California wools and the noils usually have to be carbonized if the felt is to be finished white or in a light color. Dependent on the quality of the felt desired, all gradations of the above classification can be used. Stained and yellow or gray wools can be used in pads, oxfords, blacks, etc. For white felts or light shades of pennants or shoe felts, only the top sorts can be used.

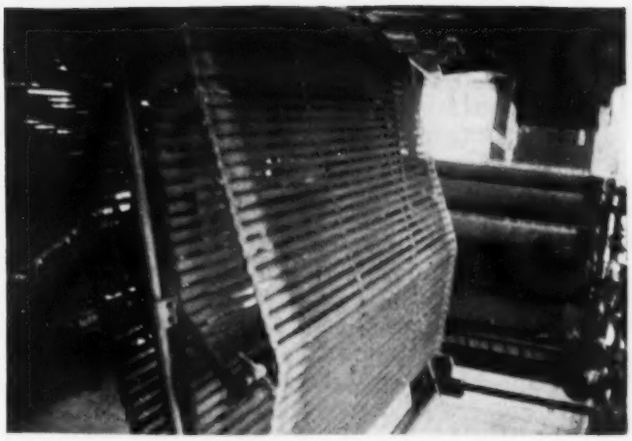


Fig. 4. Slatted cross-former

Often the wool has to be carbonized, as vegetable matter has a bad habit of working to the surface of the cloth during fulling. If its presence is undesirable, it must be removed from the raw stock, as it is not practical to carbonize felt in the piece. Unfortunately, carbonizing reduces the felting quality and makes the wool less desirable from a working standpiont. It is rather commonly believed that wool carbonized by the aluminum process does not require subsequent neutralizing, as does the wool carbonized with sulphuric acid. This idea has cost the felt maker plenty and it is strongly urged that any aluminum-carbonized wool be tested for acid before and after purchase. Buy it only on the basis that it is to be neutralized before delivery, and then test it after receipt and before use. If acid, do not use it if soap is employed in fulling. The only exception is where acid is the fulling agent. The best rule is not to have acid wool in the factory, as it inevitably will cause trouble. This is not a popular idea with many wool dealers, but experience bears out theory in this instance.

Only clipped wool is suitable for felting. A pulled wool is quite inferior for this purpose and should be avoided. Garnetted stock and shoddies find their place in felt when the price is advantageous. They are dangerous things in all-wool felts, as it is almost impossible to keep out cotton threads which do not dye with acid colors and therefore show up white in the colored goods. Carbonizing removes them but seriously impairs the working qualities of the stock. Dry carbonizing is usually employed for carbonizing rags or clips. The resultant stock is acid and will cause trouble if not neutralized. Even carbonizing will not take out the silk thread, and its presence is not shown by the caustic boil-out test for vegetable fiber. A dye test is the only safe way to prove the presence or absence of silk thread in garnetted stock or shoddies.

Egyptian combed cotton, card strips, and various cotton wastes are used extensively to produce goods of certain qualities, or as a cheapener. The rough Peruvian or Indian cottons are desirable wool substitutes in slipper felts and some other types.

Various shoddies, card waste of all grades, jute noils, etc., are used for the cheaper pad felts which require little fulling. Camel's hair is used in small amounts for some purposes. Hair is never blended with fine wool or shoddies, but by itself is the component of hair felts from soft pads to those of almost rock-like consistency. It is useless to try to cheapen a mix with hair; because when fulled, the hair all comes to the surface.

It is obvious that any single formula for a blend to

produce a given piece of cloth is capable of substitution in every item, and there is no point in illustrating a blend for that reason. Price changes, availability, quality of particular clips—all determine the make-up of the blend, and it requires an experienced and skillful man for that work.

Pressed-Felt Manufacture

The operations of pressed-felt manufacture are briefly the following: (1) blending (laying down mix, picking, and mixing), (2) carding, (3) forming of bats, (4) hardening, (5) fulling, (6) scouring, (7) dyeing, (8) drying, and (9) finishing.

Operations 3, 4, and 5, take the place of the usual operations of woolen cloth manufacture, in which yarn is spun, spooled, beamed, and woven into cloth. Felt is made by taking a web from the full width of the card and, by suitable means, superimposing the web in layers until a substantial thickness is obtained. This bat does not look much like cloth at this point, as it is a carded, fluffy mass of fibers possibly 8 in. thick, 90 in. wide, and 42 yd. long. The bat is compressed and felted enough on a hardening machine to give some strength to the resultant material. While there is some strength to the cloth at this point, it is still far from strong enough to be useful.

This additional strength is secured by the fulling action of felting or fulling mills or stocks. These consist of wooden kickers which alternately push the cloth against the confining ends of the box containing the kickers, and then release it. The cloth has been lubricated with a soap solution, and under these conditions the work put into the fabric develops heat. The combination of moisture, heat, and mechanical motion produces the felting action, possible only from a wool or hair fiber; and the cloth shrinks in length and width, acquiring thickness and strength. From this point on, the operations are quite similar to those of a woolen mill, probably presenting no more or less difficulty, with the exception of the dyeing. It is not likely that any more difficult or tricky job of dyeing is to be found in the textile industry than that of coloring felts.

For purposes of illustration, the manufacture of a cotton-mix slipper felt will be described. The smallest economical unit is a lot of eight pieces, and it is desirable to lay down a batch of at least 1,000 lb. at a time. The batching floor should either be lined with tin or be a well-matched and perfectly smooth wood floor. A batch is laid down by placing a portion of the wool in a thin layer, covering about 16 sq.ft. of floor space. On top of this is placed a portion of the shoddy, then the waste and cotton. Alternate layers are repeated until the batch is complete. Since a thorough mix is essential to good manufacture, it is necessary that the blending be done carefully. An armful of the mix is taken from the vertical section of the pile and spread on the feed apron of a mixing picker (see Figs. 1 and 2), which mixes the stock and blows it to a bin or room. One mixing through the picker is not enough, as there is noticeable segregation unless the operation is repeated.

Carding and Forming

All of the various types of wool or union felts require two carding operations, one on the breaker card and one on the finisher card. Stock from the breaker card, Fig. 3, can be accumulated on a drum at the take off; and when sufficient thickness has been secured, the bat can be torn off and placed on the feed apron of the finisher card. More modern practice recommends doffing the product of the two breaker cards in the form of sliver. The slivers are combined and fed to the 84-, 90-, or 100-in. finisher card by an Apperly feed.

From the finisher card the web is doffed the full width of the cylinder and the continuous sheet or web is dropped onto a travelling, endless, duck apron about 42 yds. long and 108 in. wide, running over a series of rollers. The web from the finisher card is taken away by the movement of the apron, which is speeded to synchronize with the delivery rate of the card. At each revolution of the apron another layer of web is superimposed on the web collected by the previous revolution. Thus the bat on the apron can be built up to a thickness of not over 2 in. If greater thickness is needed, it is obtained by combining bats in the hardening operation.

When the proper thickness has accumulated, the bat is cut across its width, rolled up on a stick, and removed from the forming apron. Formerly it was necessary to have two men, using sheep shears, trim both sides of the bat when it was being removed. As one had to work left-handed, it was a difficult task, since there were 42 yd. to trim without a chance of stopping. A trimming machine is now available which replaces the manual method. It is both possible and necessary to control the carding and forming so that a bat will weigh within one pound of a predetermined weight. Bats should be weighed to check the accuracy of the work. If they are not right, they can't be corrected by any subsequent processing.

The foregoing description concerns straight forming; which is satisfactory for some types of felt. Where greater widthwise strength is desired, provision is made to deliver an additional web from a second set of breaker and finisher cards set at right angles to the travel of the apron. This web is taken from the card by a slatted-wood apron which is caused to move back and forth across the width of the traveling apron like a slowly moving fan (Fig. 4). If the apron were stopped, this second web would be laid down at right angles; but as it is moving, the various speeds of apron and crosser are so regulated that the web is laid down at an angle of 60°. Thus, in two complete revolutions of the apron, a uniform thickness of carded web is built up on the former apron. This consists of (1) a web from the card feeding directly onto *(continued on page 39)*

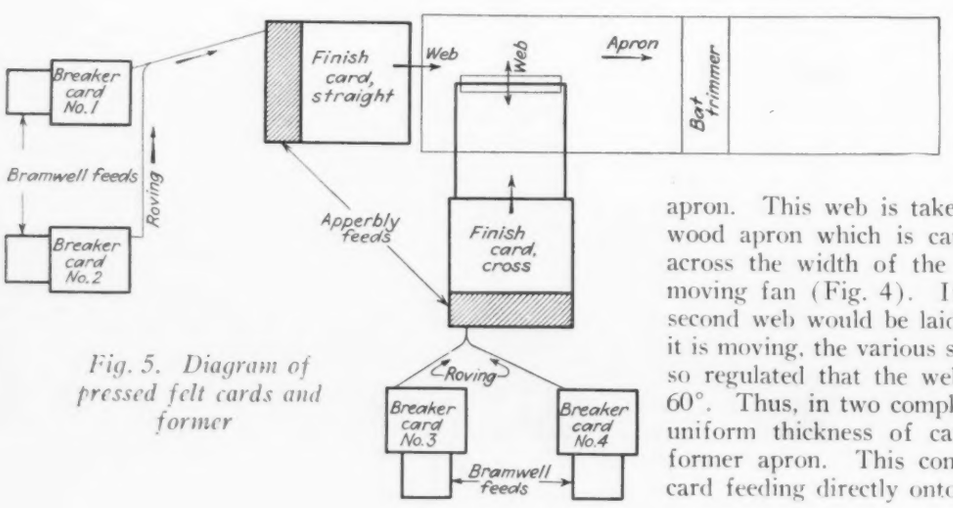


Fig. 5. Diagram of pressed felt cards and former

Underlying Causes of Unevenness in Vat Dyeings *on Cotton Piece Goods*

By Dr. E. W. Pierce

IN STUDYING the output of various dyehouses and bleacheries both in New England and the South, one cannot fail to be impressed by the appreciable amount of excellent work which is rejected not only by cutters, converters, and wholesalers, but also by the examiners in the finishing plant itself.

There are quite enough seconds under normal conditions, for spots, damages, and other imperfections have a way of occurring even in the best-managed plant. The great injustice to the dyer and bleacher is when a large percentage of a long run of goods is returned to the dyehouse for re-dyeing merely because the shade is a trifle lighter or darker than the standard sample. If this state of affairs were the result of poor work on the part of the dyer, there would be a justification for returning the goods; but many times such variations in shade are not within the power of the dyer to control. Such a broad statement calls for proof; and such proof is easily available in the finishing department.

Take, for example, a lot of mercerized broadcloth or sheeting which has been dyed with vat colors, finished, and inspected. This lot is found to be well covered, level, fast to all requirements, and free from cloudiness or spots. In the shading room, however, the goods are sorted into several piles, some of which are passed, and others—comprising perhaps 20 to 30% of the lot—penalized and returned to the dyehouse as off shade.

Collect the contents of the waste baskets, and lay out on a table all the seams which were cut or torn from the ends of the pieces which have been processed and dyed and examine them carefully. It will be easy to determine which are the original seams used to stitch together the gray goods when they were first put into work and which indicate that the pieces or cuts on both sides of the seam were mercerized, washed, kier-boiled, bleached, and dyed under precisely the same conditions.

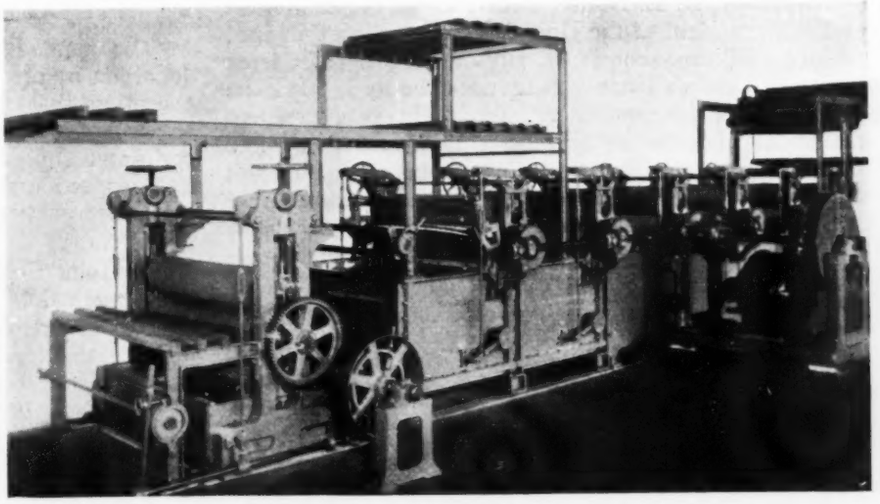
It will be noticed that in many cases the goods on one side of the seam are darker in color than on the other side; and if the pieces can be traced, the entire piece will be darker or lighter. Sometimes a change will be found in the piece itself, and a sharp line of filling will divide the light from the dark portion. By no manner of reasoning can the dyer be held accountable for such color changes; yet he will be made responsible, and the profits of the dyehouse will be cut down by having to re-dye goods that do not match the standard sample.

It may be asserted that the condition just discussed is to be noticed equally in work done by jig dyeing, pigment padding, reduced padding, or continuous machine; and there is no remedy in the use of any particular class of vat dyes or by the use of any special type of machine; the trouble is inherent in the gray goods, and should be so recognized by the industry at large.

While vat dyes show these color differences more than any other class of colors, at times the same effects have been noticed with direct dyes. In one instance the variation was found to be due to a change from Georgia cotton to Texas cotton in the filling. This does not mean necessarily that Georgia cotton has a different affinity for dyes than Texas cotton, but that these particular lots had encountered different atmospheric conditions in their journey from the cotton field to the dyehouse.

Cotton fiber is affected more or less by every atmospheric and mechanical condition it encounters and will record its condition when it is in the dye liquor. Simple matters like twist, picks per inch, tension, length or diameter of fiber, humidity during spinning and weaving, and many other seemingly unimportant influences may have a great effect on the shade which will be produced from the dye liquor. No dyer or process of dyeing is able to cope with these conditions; therefore the only remedy is to have an understanding with the converter, wholesaler, and cutter; and thus avoid an unnecessary tax on industry.

It is a well-established and fully admitted fact that the most costly and least profitable goods any plant can produce are their seconds. The high cost of seconds must be passed on to the firsts, *(continued on page 61)*



Modern equipment and careful control of the dyeing process are not always sufficient to insure uniform shades with vat colors

American Reports on Raw-Silk Classification

Conform Closely to Japanese

STUDY of the progress report recently issued by the Joint Committee on Raw-Silk Classification of the National Raw Silk Exchange and the Silk Association of America, Inc., discloses that few points of difference remain between American and Japanese practice. Unfortunately, the Japanese were forced by rulings of their government to adopt a definite schedule on July 1, else more time might have been allowed for an attempt to reach complete agreement. As the Japanese report is now standard practice in Japan, and as the Americans are quite well convinced of the soundness of their own views, it is likely that no further progress toward international agreement can be expected for some time.

Close agreement between American and Japanese markets is evident also in the recently issued report on a proposed revision in methods of sampling and testing and a modification in the design of the seriplane inspection room, made by the Silk Association's independent classification committee. According to this report, in the words of Dr. D. E. Douty, a member of the committee and vice-president of the United States Testing Co., Inc., "a lot of silk may consist of any number of bales from one to ten, and the quality sample for the lot is 50 skeins regardless of the number of bales. The very excellent mathematical discussion by Messrs. Higo and Matsumoto of the theory of random sampling has been accepted and applied by the committee to reduce the probable error and to include in the quality sample the reeling of approximately 50 reeling girls regardless of the size of the lot."

Recommendations on Testing

"The Committee proposes a backward step," continues Dr. Douty, "in revising the winding test to depend upon a time basis rather than the breaks which occur when a definite quantity of raw silk is wound. The new test agrees with the Japanese except that it requires 25 skeins to be wound from the top only. The results are calculated for "breaks per 50 skeins" in agreement with the Japanese method.

"The test for average size is in complete harmony with the Japanese. Four sizing skeins are wound from each sample skein, making 200 sizing skeins for a lot, and the average size is computed upon the conditioned weight of the entire 200 skeins. To meet a need in the New York market which does not exist in Japan, the committee provides a sizing test for a single bale. This may be made upon 10 skeins from the bale. Only four sizing skeins are taken from each sample skein, making 40 sizing skeins to the bale in place of 30 skeins in the present standard test specified by the "Second Report" (1926) and "Joint Report" (1929).

"The committee proposes to treat the size-deviation test merely as an extension and a detail of the average size test. It applies to a lot (200 skeins) only. The 200 sizing skeins are weighed separately before being conditioned. The Japanese still treat it as an independent test, but the details of making and interpreting it are essentially in agreement.

"The inspection tests for evenness, cleanness, and neatness become essentially the major tests. Recognizing the greater importance of decreasing the probable error by the increase of the general sample to 50 skeins, the committee proposes the reduction of the number of panels for a lot from 160 to 100.

"Both the Japanese and American Committees have recognized the danger of seriplane tests on insufficient sample and both declare that 50 skeins, 100 panels, is the minimum sample for a seriplane test, whether it applies to one bale or to ten bales. This is equivalent to assuming that it is necessary to have the sample include the product of approximately 50 reeling girls of a filature to be a safe measure.

"The Japanese and American Committees are now in harmony on the evenness test. The only part remaining for consideration is the photographic standards.

"Regarding the cleanness test, the two markets are in harmony with the exception of the penalty to be applied for major defects. Feeling that major defects can be eliminated almost completely by proper care in reeling, the American committee proposes a deduction of 0.5% for each major defect, while the Japanese have adopted 0.4% deduction. The American committee requires that defects which catch and break the thread in the tension device during the preparation of the panels shall be classified and included in the count. The classification and definitions of the various cleanness defects are in complete agreement and the American Committee proposes the adoption of the Japanese illustrative photographs as standard.

"The method of making neatness estimates and the definition of neatness defects are in agreement with the exception that the Japanese include 'very fine corkscrews,' while the American Committee feels that a corkscrew sufficiently prominent to be seen in the neatness inspection should be rated as a minor defect."

Composite Average

The Joint Committee's plan of classification is based on the principle of a composite average of the major tests of evenness, cleanness, and neatness, while retaining the American principle of minimum limits for these characteristics to protect the buyer and seller against abnormal raw silks in which higher percentages in some characteristics might conceal in the composite average a very low value in one or more characteristics. This becomes especially true when weightings are applied to the various characteristics entering into the composite average.

The Joint Committee's composite average differs from the Japanese in two ways. It omits the low average evenness and gives a weighting of 60% for evenness and 40% for cleanness-neatness, while the Japanese includes the low evenness in the composite average and gives a weighting of 70% for evenness and 30% for cleanness-neatness. The American values have been graduated downward in uniform logical steps, while the Japanese values are quite irregular and give the impression of being a compromise between grades of quality and degrees of price.

Minimum values are suggested for low evenness, cleanness, and neatness only, while the Japanese include average evenness among their minimums. The numerical value for these limits is in fair agreement.

The Joint Committee's plan differs from the Japanese materially in regard to auxiliary tests. No attempt is made to readjust the grade upon the results of auxiliarly tests. The minimum values set up for them merely determine whether raw silk is a good delivery under its grade percentage. If it is not, the grade is not changed, but the silk is not deliverable under the grade and must be adjusted by special agreement. The Joint Committee removes from auxiliary tests the winding and cohesion tests and groups them with size-range under a new division, "Miscellaneous Tests," the results of which are arranged in different degrees and known as specifications.

No attempt is made to indicate the relation existing between the grades in the classification and gradations of winding, size-range, and cohesion in the specifications.

If a buyer contracts for a high-grade silk like AAA or AA, he would have a right to expect excellent degrees of the miscellaneous tests. If he buys a medium grade like A to D, he could expect only a good to fair value in the miscellaneous test. If he buys a low grade like E, F, or G, he could hardly demand excellent or good values in the miscellaneous. If a buyer wishes to give special consideration to any of the miscellaneous characteristics he must inform the seller in advance.

The Joint Committee's report follows:

CLASSIFICATION AND SPECIFICATIONS

Article 1—Object—The object of the classification is to establish the grading of raw silk by the results of quality tests. The specifications provide an interpretation of results of quality tests which are not included in the classification.

Article 2—Quality Tests are arranged in three groups, viz.:

(A) *Major tests* consist of evenness, cleanness, and neatness tests. Evenness includes (1) average evenness and (2) low average evenness.

(B) *Auxiliary tests* consist of size and serigraph tests. The size test includes (1) average size, (2) size deviation, (3) size variation. The serigraph test includes (1) strength, (2) elongation.

(C) *Miscellaneous tests* consist of (1) winding; (2) size range (ecart) (a) for a bale, (b) for 10-bale lot; (3) cohesion.

CLASSIFICATION

MAJOR TESTS

Article 3—UNIT OF CLASSIFICATION—The unit upon which the raw-silk classification establishes grading shall be one lot. The quantity of one lot may consist of one bale to ten bales.

Article 4—GRADES—The Classification shall consist of nine grades; viz.: AAA, AA, A, B, C, D, E, F, G.

Article 5—THE GRADE PERCENTAGE—The grade percentage as specified in this classification shall be the composite average percentage consisting of the sum of the testing results of the major test—average evenness, cleanness, and neatness multiplied by the relative percentage of importance (weightings) fixed for each of these characteristics as specified herein; and the defects penalties indicated below.

Percentage of Importance:

Average Evenness	60%;	weight 3
Cleanness (major and minor defects)	20%;	weight 1
Neatness	20%;	weight 1
	100%	5

Cleanness Defects Penalties:

For each Major Defect deduct..... 0.5%
For each Minor Defect deduct..... 0.1%

Article 6—CLASSIFICATION—The grades of the classification shall be determined by the grade percentage, together with the minimum value of low average evenness, cleanness, and neatness. In case a raw silk shows a test result for one or more of the major tests below the minimum limits set for its grade percentage, it shall be degraded to the grade indicated by the minimum limits. A lot showing a grade percentage 2% or more above grade AAA and exceeding all minimum values specified for AAA grade, may be indicated as "Special AAA" to denote the super-excellent quality of the lot.

Article 7—DELIVERY LIMITS

Auxiliary Tests—The minimum limits set for the auxiliary tests do not change the grade of raw silk as established by the major tests, but any raw silk which fails to meet the minimum requirements of one or more of the auxiliary tests shall not be considered as a good delivery under its grade percentage, and its acceptance. *(Continued on page 62)*

CLASSIFICATION TABLE

Japanese Raw Silk; white and yellow, any size, one bale to 10-bale lots.

Major Tests Grades	AAA	AA	A	B	C	D	E	F	G
Grade percentage (Av. evenness, cleanness, neatness)	90	88	86	83	80	77	73	69	Below 69
MINIMUM LIMITS									
Av. low panels	81	79	76	73	70	66	62	57	Below 57
Cleanness	85	85	80	75	70	65	60	60	60
Neatness	90	88	86	83	80	77	72	67	67

DELIVERY LIMITS

To be a good delivery under its grade percentage a raw silk must meet the following minimum requirements

Auxiliary Tests Grades	AAA to D	E and F	G
Size deviation			
Below 17 denier	Not more than 1.50	1.70	Above 1.70
Above 18 denier	Not more than 1.90	2.00	Above 2.00
Size Variation			
Av. 9 to 12 denier	Not more than .4 denier		
Av. 13 to 18 denier	Not more than .5 denier	....	Above .5
Av. 19 to 22 denier	Not more than .5 denier	.75	Above .75
Av. 23 to 31 denier	Not more than .8 denier	1.00	Above .75
Strength			
Serigraph, grams per denier	Not less than 3.5	3.0	Below 3.00
Elongation			
(serigraph) per cent	Not less than 20	18	18

SPECIFICATION TABLE

Miscellaneous Tests: The values of the various characteristics listed below furnish interpretations of the tests and information which will assist in specifying these characteristics.

Grades		Excellent	Good	Fair	Poor	Very Poor
Winding test, 25 skeins, breaks per hr.		12	15	25	40	Above 40
Size-range (ecart)	9 to 12 den.	4 den.	5 den.	5 den.	.....	.....
Per bale, 40 sizing skeins, not over	13 to 18 den.	5 den.	6 den.	7 den.	8 den.	Above 8 den.
	19 to 22 den.	6 den.	7 den.	8 den.	9 den.	Above 9 den.
	23 to 31 den.	7 den.	8 den.	9 den.	10 den.	Above 10 den.
Size-range (ecart) per lot, 200 sizing skeins, not over	9 to 12 den.	5 den.	6 den.	7 den.	.....	.....
	13 to 18 den.	6 den.	7 den.	8 den.	9 den.	Above 9 den.
	19 to 22 den.	8 den.	9 den.	10 den.	11 den.	Above 11 den.
	23 to 31 den.	9 den.	10 den.	11 den.	12 den.	Above 12 den.
Cohesion tests, Duplan, not less than	.....	90%	85%	80%	70%	Below 70%

Sears Roebuck Laboratory

a Factor in Textile Development

By John Black

Assistant Editor, TEXTILE WORLD

ONE of the notable examples of the modern trend toward research and standardization is the laboratory maintained by Sears, Roebuck & Co. at their Chicago headquarters. This laboratory was founded about twenty years ago. Its textile division has developed to such a point that today it constitutes virtually an advisory technical service for many textile manufacturers who specialize in big volume output of moderately priced fabrics.

The laboratory has no direct dealings with manufacturers, since all orders clear through buyers; but the benefits which accrue to the weaving and knitting trades are none the less significant for that. Textile samples, whether broad goods, apparel, furnishings, or other products, which are offered for sale to Sears Roebuck buyers, go to the firm's laboratory for testing. The tests and analyses conducted by the technicians in that department are made according to standard methods, such as those developed by the Bureau of Standards and the American Society for Testing Materials, when such methods exist. However, in a great many problems it is necessary to work out new methods or to adapt those developed for some other purpose. And it is upon these findings that sales to the Sears Roebuck organization involving hundreds of millions of dollars are to a large extent dependent.

Wide Scope of Activity

The writer recently enjoyed the unusual privilege of a full day's visit to the Sears Roebuck laboratory, where he was given a detailed presentation of its functions. The textile division is one of four branches of the laboratory; the other divisions are: general chemical analytical, electrical and mechanical testing, and the science library. The personnel totals 23, of which 8 are in the textile division. The maintenance cost of the testing laboratory exceeds $50,000 annually. The significance of the textile tests to the weaving and knitting industries may be gaged by the fact that 35 to 40% of the entire Sears Roebuck business is in textiles. The laboratory is in charge of Miss Elizabeth S. Weirick.

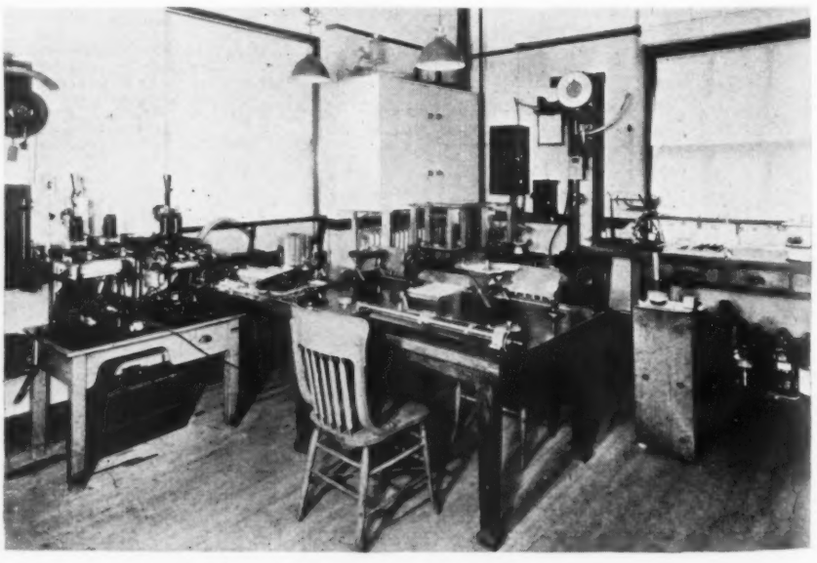
The relation of the textile laboratory to manufacturers may best be explained as follows: When samples fail to meet the exacting tests through which they are put by the analyst, they are returned to buyers, with information stating where they are remiss; this information often contains extensive data of testing specifications. The data are submitted by the buyers to the textile manufacturer, who in turn submits them to his own technicians, and a new effort is made to produce textiles that will meet Sears Roebuck requirements. This data may relate to construction, composition, shrinkage, wearability, dye fastness, waterproofing, or any other of the many qualities required. The textile manufacturer often finds that study of the results of Sears Roebuck tests leads him to the development of entirely new textiles.

All Sorts of Samples

The samples submitted to the laboratory run the whole gamut of textiles. A few, picked at random from one week's grist, follow: waterproof mittens, gym shoes and linings, denim overalls, auto-top dressings, treated silk crepes, cotton sewing threads, corduroys, silk dress fabrics, coat linings, raincoat fabrics, pongees, tickings, cotton prints, curtain swatches, women's silk stockings, artificial leather, felt-base floor coverings, bedspreads, linen crash, shower curtains, ropes, lawn bias tape, blankets, shoe laces, and polishing cloths. In the week ending April 20, the textile division handled 254 samples and problems; in the year 1930 the laboratory handled 6,400 items and problems. Some problems are involved and require the attention of analysts for weeks.

Following is an extract from the laboratory report regarding neckwear fabrics:

"The best fabric that can be used in a tie is all-silk,



Section of Sears Roebuck textile laboratory

Another view in Sears Roebuck laboratory

preferably of a twill weave or a twill weave with small jacquard patterns. Such fabrics give excellent wearing quality and a neat appearance, and have the ability to mold or drape easily. Satins with long floats are easily snagged and do not give satisfaction. A cloth with a cord-like filling, such as poplin, is stiff and does not mold itself to the proper shape easily.

Weighted Silks Undesirable

"A silk heavily weighted with metallic salts should be avoided, because it will not give satisfactory wear. Heavily weighted fabrics do not stand constant creasing and handling.

"Next in preference to silk twills would be a silk and rayon twill in which the silk warp is thrown to the surface and the rayon filling is covered. This type of cloth wears very well, although it does not drape itself quite so well as silk.

"All rayon fabrics may or may not have a high luster. They resist abrasion, such as rubbing, but they crease easily. They would be only fairly desirable for tie fabrics.

"The use of printed cotton fabrics in ties is only a fad. Cotton creases easily and does not drape well, although it has good wearing quality and can be laundered."

Suggestions for improvement of merchandise submitted to manufacturers through buyers have resulted in important textile developments. For example, a new line of inexpensive cretonnes which are fast dyed was offered by Sears Roebuck for the first time this year. For a long time, Sears Roebuck had been trying to get low-priced cretonne prints which would be fast to washing. Buyers searched the market for such fabrics, but found that most of the cheaper cretonnes were not washable or sunfast. When the laboratory chemists insisted upon the possibility of producing fast-dyed cretonnes for the low-price market, the mills were quick to turn out this line.

Another recent development in which the laboratory cooperated was the production of cotton work shirtings, with minimum shrinkage. When these shirtings were first tested in the laboratory, the shrinkage percentage was too high. Samples were returned to the weavers, with full particulars of tests and results. Such data always prove of great value to the mills, as they represent the work of a trained staff which has the advantage of complete and costly testing equipment. Frequently the mill is without such equipment, and therefore unable to make the necessary tests before submitting samples. The task of reducing shrinkage in cotton shirtings to a minimum was involved, and it represented months of experimental work on the part of both laboratory and mills.

Shrinkage Test

The following extract from a report submitted by a Sears Roebuck analyst describes the test employed to determine shrinkage in chambray work shirts, some of which were claimed to be preshrunk:

"The shrinkage of the fabric shows some variation in both groups of shirts, as the following table demonstrates:

	Preshrunk Shirts	Not Preshrunk Shirts
Lengthwise		
Maximum shrinkage per yard....	1.9″	4.3″
Minimum shrinkage per yard...	.5″	3.3″
Average shrinkage per yard.....	1.2″	3.9″
Crosswise		
Maximum shrinkage per yard....	.4″	1.5″
Minimum shrinkage per yard...	.1″	.4″
Average shrinkage per yard.....	.2″	.9″

"All the shirts were washed three times and then boiled once. Measurements after the third washing indicated that very little additional shrinkage had taken place after the second washing. The shirts then were boiled to see whether that would increase the shrinkage. The results were negative.

WASHING: *Soap Solution*—0.5% neutral soap, 0.2% soda ash. *Equipment*—Electric washing machine of type used in home.

METHOD: *Washing*—Washed at approximately 160° F. for 15 min.; wrung in power wringer; rinsed for 15 min. in machine at approximately 160° F., and wrung; rinsed thoroughly in cold water, and wrung; partially dried—rolled up to prevent further drying; ironed. *Boiling*—Boiled for 30 min. in same strength soap solution; rinsed in machine at 160° F., and wrung; rinsed in cold water, wrung out, and partially dried; rolled up and then ironed."

The store does a good business in heavy canvas tarpaulins, such as would cover haystacks, and it is essential that these have maximum water resistance. The canvas is tested essentially according to a method developed by the United States Department of Agriculture. An apparatus, equipped to imitate varying degrees of rainfall, from shower to downpour, is employed. The drops strike the canvas at a 45° angle, and any spray or drops penetrating the fabric are registered on a blotter, which was previously covered with a soluble red dye—water-soluble eosine. The most severe rain-fall test is 1,000 c.c. per min., falling from a height of 6 ft.

Microscopic photography is an interesting part of the testing work, and the laboratory equipment includes an extensive library of photographs and authentic specimens of all kinds of animal, vegetable, and synthetic fibers.

Color standardization also is an important problem. The laboratory prepares sets of color charts of blues, reds, greens, yellows, and other colors.

Comparison of Breaking Strength and End Breakage

*By J. O. Corn**

Pacific Mills, Columbia, S. C.

IN order to determine the relationship, if any, between yarn breaking strength and end breakage on the spinning frame, the author has made a series of four tests, each test representing 400 yarn breaks. All four tests were made at the same time, the roll settings of the slubbers, intermediates, and speeders being different for each one.

*Reprinted from the June, 1931, issue of The Arkwright Journal, Johnston Bldg., Charlotte, N. C.

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Picking, carding, and spinning were all held at a constant relative humidity by automatically controlled units. All four sizings were reeled and conditioned for 2 hr. before being broken and weighed under a 63 to 65% relative humidity, or corrected to that percentage. The stock was handled in its usual manner through the drawing frames and no special care was taken in selecting stock for any test.

The stock used was one-half middling and one-half strict middling. The staple was 1 in. plus. The mix consisted of six bales, being fed from the bale to the apron of the No. 4 opener.

Opening-room equipment consisted of bale breaker, vertical opener, horizontal opener, and a conveyor system to carry the stock to the distributor. The layout of preparatory machinery through drawing was the same for all tests.

Picker-room equipment consisted of the following machines: two beater machines, 1st beater 20 in., 2 blades, 18 B.P.I., 2nd beater, 16 in., 3 blades, 21 B.P.I.; weight lap 13¾ oz. The finisher pickers were equipped with 16-in., 3-blade beaters giving 83 B.P.I. The draft used was 4.03, and a 12¼-oz. lap was produced.

The carding data were as follows. 40-in. machines; 9.67 doffer r.p.m.; 11.81 lb. per hour; draft 102; 49-gr. sliver produced. Breaker drawing data were front roll, 377 r.p.m.; weight of sliver 49 gr.; draft 6.00; roll settings (1-2) 1 5/16, (2-3) 1⅜, (3-4) 1½; center to center 1½, 1 5/32, 1 11/16. Finisher drawing data were front roll 377 r.p.m.; weight of sliver 50 gr., draft 5.88; roll setting (1-2) 1 5/16, (2-3) 1⅜, (3-4) 1½; center to center (1½, 1 5/32, 1 11/16). Slubbers produced a 0.65 hank roving having 1.02 T.P.I. The twist *(Continued on page 66)*

TEST No. 1

From each test 400 weighings and breaks were made. These bobbins were selected at regular intervals during each day.

In addition to the above layout, this test contains the following roller settings taken with carbon paper and measured from bite to bite.

	F.M. In.	M.B. In.		F.M. In.	M.B. In.
Slubber	1 9/32	1½	Center to center	1 11/32	1 19/32
Intermediates	1 7/32	1½	Center to center	1 10/32	1 19/32
Speeder	1 5/32	1½	Center to center	1 1/4	1 19/32
Spinning	1 1/16	1⅜	Center to center	1 5/32	1 15/32

	Yarn No.	Strength	R.H.	Variation	Breaks per 100 Spdls. per Hr.
Tuesday	29.25	51.1	61	4.50	4.86
Wednesday	29.35	51.1	64	4.75	5.27
Thursday	29.19	53.3	65	4.75	5.94
Friday	29.34	53.0	67	5.00	4.20
Monday	29.23	54.2	70	5.00	5.54
Tuesday	29.31	54.7	67	3.25	2.68
Average for 55 hr.	29.28	53.1	66	4.54	4.75

TEST No. 2

The same as No. 1 with the following roller settings:

	F.M. In.	M.B. In.		F.M. In.	M.B. In.
Slubber	1 11/32	1 1/12	Center to Center	1 14/32	1 19/32
Intermediates	1 9/32	1½	Center to Center	1 12/32	1 19/32
Speeders	1 7/32	1½	Center to Center	1 5/16	1 19/32
Spinning	1 1/16	1⅜	Center to Center	1 5/32	1 15/32

	Yarn No.	Strength	R.H.	Variation	Breaks per 100 Spdls. per Hr.
Tuesday	29.41	52.5	61	4.25	4.28
Wednesday	29.50	54.2	64	4.75	3.17
Thursday	29.11	55.3	65	4.75	4.52
Friday	29.10	54.7	67	4.75	2.36
Monday	29.31	54.8	70	4.50	3.41
Tuesday	29.04	55.8	67	4.50	4.13
Average for 55 hr.	29.25	54.7	66	4.58	3.64

TEST No. 3

Same as Nos. 1 and 2 with the following roller settings:

	F.M. In.	M.B. In.		F.M. In.	M.B. In.
Slubbers	1 13/32	1½	Center to center	1 16/32	1 19/32
Intermediates	1 11/32	1½	Center to center	1 14/32	1 19/32
Speeders	1 9/32	1½	Center to center	1 3/8	1 19/32
Spinning	1 1/16	1⅜	Center to center	1 5/32	1 15/32

	Yarn No.	Strength	R.H.	Variation	Breaks per 100 Spdls. per Hr.
Tuesday	29.52	52.3	61	4.00	3.66
Wednesday	29.27	53.9	64	3.75	3.39
Thursday	29.11	55.1	65	4.00	3.52
Friday	28.68	55.6	67	4.50	4.87
Monday	28.79	55.9	70	4.25	4.82
Tuesday	28.99	54.9	67	4.25	5.54
Average for 55 hr.	29.06	54.6	66	4.12	4.30

TEST No. 4

Same as 1, 2, and 3 with the following roller settings:

	F.M. In.	M.B. In.		F.M. In.	M.B. In.
Slubbers	1 15/32	1½	Center to center	1 18/32	1 19/32
Intermediates	1 13/32	1½	Center to center	1 16/32	1 19/32
Speeders	1 11/32	1½	Center to center	1 14/32	1 19/32
Spinning	1 1/16	1⅜	Center to center	1 5/32	1 15/32

	Yarn No.	Strength	R.H.	Variation	Breaks per 100 Spdls. per Hr.
Tuesday	29.53	52.6	61	6.00	4.71
Wednesday	28.98	54.0	64	4.50	4.86
Thursday	29.09	54.5	65	3.50	4.57
Friday	29.05	53.9	67	4.00	3.41
Monday	28.90	55.2	70	3.75	5.43
Tuesday	28.92	54.55	67	4.00	7.21
Average for 55 hr.	29.07	54.1	66	4.29	5.03

Suitable Records *Minimize Obsolescence Danger*

◆ *The investigation into methods employed by mills for anticipating and deciding upon the replacement of equipment recently completed by* TEXTILE WORLD *discloses an appalling negligence on the part of mills in the keeping of suitable records showing the condition of machinery. In the machine-building industry, it is declared, more care is taken in this respect; and readers will be interested to study the accompanying form used by a prominent builder of sewing machinery. The company makes the following comments regarding it:*

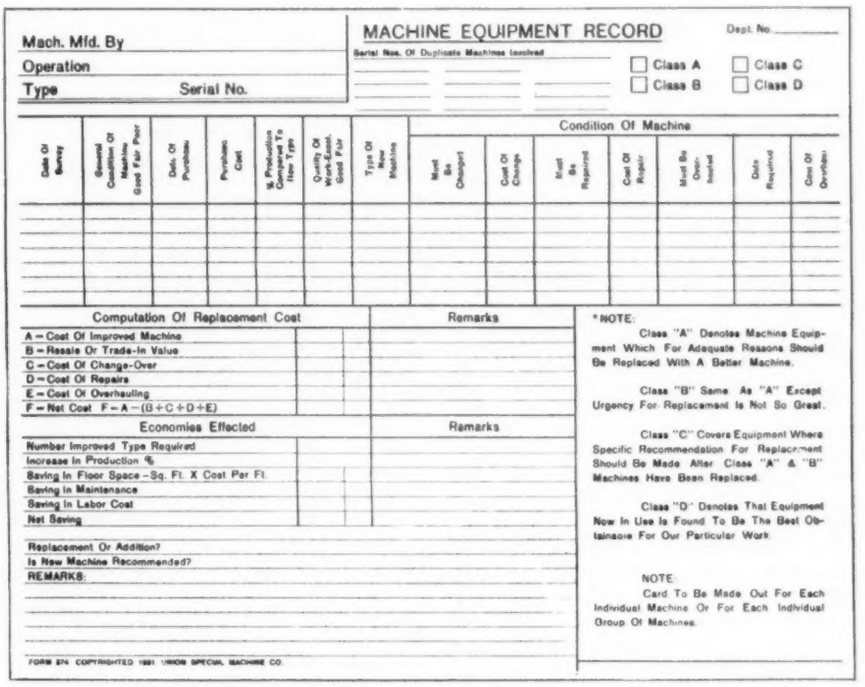
IN almost every discussion of the ills of modern industry, attentive readers and listeners will note the words "machine obsolescence." While mere age is not always proof that a machine is inferior to present-day models, it is wise to consider that natural progress and improvement have always played an important part in the success of American industries. Obviously, the logical procedure would be to determine all the factors that enter into the valuation of any particular machine.

It is with this thought in mind that the Union Special Machine Co., 400 N. Franklin St., Chicago, makes public the system that is used in its own factory, believing that the same methods can be applied advantageously by members of the textile trade for the betterment of their mechanical equipment. By this system each individual machine or each individual group of machines is provided with a complete pedigree which coordinates all of the factors having a bearing on the determination of the degree to which obsolescence exists.

Based on observation of the system under actual operating conditions, the benefits derived may be listed in five principal classifications, as follows:

1. The time for taking inventories is reduced, and in fact machine operation need not be interrupted.
2. Attention is constantly directed towards each individual machine. Thus wasteful and inefficient units are quickly detected and exposed, with the evidence of their faulty performance prepared in a form suitable for presentation to those in authority.
3. Officials of the operating department are forced to keep in touch with new developments and improvements.
4. The ordering of replacements and repairs is facilitated, and minimum time is wasted by machines idle during operating time.
5. The financial operations of the company are safeguarded through maintaining a constant balance of the appropriations for new equipment, and, as a result, by avoiding unexpected expenditures.

The chief essential of the system is the machine-equipment record card illustrated herewith and recently copyrighted by the Union Special company. The conclusions that can be drawn from a comparison of cost and savings are so self-evident as to enable anyone to render an intelligent and justifiable decision on any question of this type. The sewing-machine company offers to furnish a supply of these cards at cost to those interested.



Mach. Mfd. By
Operation
Type Serial No.

MACHINE EQUIPMENT RECORD

Dept. No.

Serial Nos. Of Duplicate Machines Involved

☐ Class A ☐ Class B ☐ Class C ☐ Class D

Date Of Survey	General Condition Of Machine Good Fair Poor	Date Of Purchase	Purchase Cost	% Production Compared To New Type	Quality Of Work Good Fair	Type Of Machine	Condition Of Machine: Must Be Changed	Cost Of Change	Must Be Replaced	Cost Of Repair	Must Be Overhauled	Date Required	Cost Of Overhaul

Computation Of Replacement Cost				Remarks
A – Cost Of Improved Machine				
B – Resale Or Trade-In Value				
C – Cost Of Change-Over				
D – Cost Of Repairs				
E – Cost Of Overhauling				
F – Net Cost F – A – (B + C + D + E)				

Economies Effected				Remarks
Number Improved Type Required				
Increase In Production %				
Saving In Floor Space – Sq. Ft. X Cost Per Ft.				
Saving In Maintenance				
Saving In Labor Cost				
Net Saving				

Replacement Or Addition?
Is New Machine Recommended?
REMARKS:

FORM 274 COPYRIGHTED 1931 UNION SPECIAL MACHINE CO.

*NOTE:
Class "A" Denotes Machine Equipment Which For Adequate Reasons Should Be Replaced With A Better Machine.

Class "B" Same As "A" Except Urgency For Replacement Is Not So Great.

Class "C" Covers Equipment Where Specific Recommendation For Replacement Should Be Made After Class "A" & "B" Machines Have Been Replaced.

Class "D" Denotes That Equipment Now In Use Is Found To Be The Best Obtainable For Our Particular Work.

NOTE:
Card To Be Made Out For Each Individual Machine Or For Each Individual Group Of Machines.

DATA ON VARIOUS NEW EQUIPMENT UNDER CONSIDERATION

MAKE & TYPE MACHINE	DATA
	DATE
MAKE & TYPE MACHINE	DATA
	DATE
MAKE & TYPE MACHINE	DATA

Above: Face of card
Below: Reverse side of card

Silk Strike Wanes in Paterson, Spreads in Providence, R. I., Area

THE silk industry strike presents a mixed picture, this week, with definite signs of peace being evident in the Paterson, N. J., district, and new friction developing in New England. The spirit of conciliation which began to manifest itself in Paterson last week, has crystallized in settlements between various groups of manufacturers and the A. F. of L. unions, and the present prospects are decidedly encouraging.

Conferences between owners of jacquard weaving plants in Paterson were held last Saturday, and manufacturers signed contracts with the merged unions, the United Textile Workers and the Associated Silk Workers, as an outcome of which workers were to return to their tasks immediately. The contracts provided for recognition of the union, an 8-hour day, adoption of the union's wage scale providing an increase of 8 to 20% in wages.

Under terms of the settlement, the employers before discharging workers, must present the case to the union's shop committee. Workers with a grievance must first present their case to the joint executive board of the union; and mill owners employing winders, quill winders, warpers, loom-fixers, twisters, pickers, designers, card cutters and apprentices, as well as weavers, shall employ union help throughout.

Monday brought further progress toward resumption of operation in Paterson, when 10 silk plant owners signed contracts with the same union group. This step was hailed as an important move toward peace, and it was believed that complete settlement of the Paterson broadsilk strike was a matter of ten days or so. The strike is now in its third week, and has resulted in considerable curtailment of broadsilk output in that district.

The first workers to return were those in the following plants: Doblin & Co., Luxite Silk Co., Novelty Silk Co., and A. Schuh & Son, Inc., and later in the week the employees of numerous other mills went back to their tasks. The main body of striking weavers in the Henry Doherty & Co. mill were organized under the A. F. of L. union banner, after a week of independent action.

The Paterson situation has been marked by some violence. Pickets in one district were made ill by gas bombs, and the police are investigating. The police arrested 33 pickets of the Communist National Textile Workers Union who refused to stop picketing at the Strenge Piece Dye Works, Paterson.

The strike situation in the Providence, R. I., district has proved far from encouraging. Settlement overtures between the employees and owners of the General Fabrics Corp., in Central Falls, dragged uncertainly along, and the weavers at the Taylor Silk Mills, at Pawtucket, went on strike last Saturday. The Taylor Mills strike brought out 35 weavers. This mill reduced wages a few months ago and the workers demanded an increase of 10 to 15% which would put the scale approximately where it had been before the cut. Officers of the plant said the workers had refused a compromise offer, and announced that unless the weavers returned in a day or so the mill would be closed. Peace efforts continue in the Central Falls dispute and there is still hope of an early settlement.

Schwarzenbach Huber Co., Columbia, Pa., has refused a demand from silk weavers for a 15% wage advance. After being out only one day, the workers returned to the mill at the present wage level.

Striking box-loom weavers at Royal Weaving Co., Pawtucket, R. I., began filtering back to work last week, as the strike there entered its sixth week. Officials said the wage cut which caused the strike remained in effect. Several hundred workers are already back.

At the Branch River Wool Combing Co., North Smithfield, R. I., 50 wool sorters struck on Aug. 5, after the management had refused their demands for increased wages and changed working conditions. No other departments of the mill were affected. The strikers said they had been receiving $32.64 for a 54-hour week and are seeking $36 for the same number of hours.

▸ T. B. Hill to Speak at Paterson Convention

Thomas B. Hill, president of the Silk Association of America, Inc., has accepted an invitation to speak at the National Silk Convention, to be held in Paterson, N. J., Nov. 18-19, it is announced this week by C. Walter Lotte, chairman of the convention committee. The convention is part of the "Silk Industry Week" to be observed in Paterson, Nov. 14-21. The date of Mr. Hill's address was not disclosed. He will speak on "Trade Abuses—Buyer and Seller-Manufacturer."

Others in charge of the plans for "Silk Industry Week" announced that much progress has been made. R. DeVere Hope, chairman of the committee in charge of the Silk Machinery Exposition, to be held at Paterson Armory, Nov. 14-21, stated that one-fifth of the exhibition space has been taken.

▸ Worumbo Issues North Pole Folder

The decision of Sir Hubert Wilkins to use Worumbo Polo Cloth for clothing and sleeping-bags on his newest trip to the North Pole, has been exploited by the Worumbo Co., New York, in an interesting folder. This direct mail piece has a photograph of the explorer for frontispiece, the center shows a cross-section picture of the interior of his submarine "Nautilus," and the remainder is devoted to descriptions of the Worumbo Polo Cloth.

▸ New Hosiery Jobbing Firm Formed in Texas

The American Sales Co., hosiery converters and wholesale merchandisers, has been formed in Texas, and has opened offices at 614 Commerce St., Dallas. A. L. Clark is general manager.

▸ Van Raalte Develops New Bemberg Fabric

A new all-Bemberg fabric of jacquard rachel construction, recently developed by the Van Raalte Co., is being used in a "Singlette" garment in that company's fall line. Floral designs in the jacquard weave are worked out on a fine mesh background.

▸ W. G. Nimmons to Handle Bemberg N. E. Sales

W. G. Nimmons has been transferred from the fabrics creation department, New York office of American Bemberg Corp., to the sales department and will cover the New England territory. His headquarters are in the Hospital Trust Building, Providence, R. I.

▸ Clarence Whitman Consolidates Sales

Clarence Whitman & Sons, Inc., of New York, have consolidated their organization for the sale of blankets, bedspreads, drapery and table damasks, in a new arrangement under which all salesmen now will handle all lines. Previously salesmen had specialized in different branches. Wilkesbarre lace curtains and nets are exempt from the new plan.

▸ Durene Mesh Hosiery Wins Big Chicago Order

Amory, Browne & Co. has developed a popular-priced mesh stocking in Durene which was ordered by a Chicago wholesaler, the order being of such magnitude that it will require capacity production on this number until Sept. 15. Amory, Browne & Co. have had to withdraw this hosiery from their line pending fulfillment of the Chicago demand.

▸ Speed Service on Dye Formulas

The National Aniline & Chemical Co. announces that it has made

arrangements with its laboratory so that, in the future, formulas for the various colors appearing on the color cards of the Textile Color Card Association will be available about a week or ten days after the color card has been distributed. Formulas for the 1931 Fall Color Card are now available.

▸ Eastern Connecticut Association Holds Outing

The annual picnic of the Eastern Connecticut Mills Association was held, Aug. 1, at Alexander's Lake, Danielson, Conn. George M. Robertson, master mechanic, Quinnebaug Co., Danielson, had charge of the program of sports and K. C. Jacques managed the clambake.

▸ Rail Leads in July Silk Shipments

Movement of raw silk traffic via the Panama Canal totaled 17,166 bales during July, while 19,750 bales were routed by rail across the country from west coast ports, the traffic bureau of the Silk Association of America, Inc., reports. European raw silk imports totaled 399 bales, total raw silk imports being 37,315.

▸ Manufacture of Pressed Felt

(Continued from page 30)

the end of the apron, (2) a web from the crosser which in half its area is doubled, (3) another web from the end card, and (4) still another from the crosser filling in the spaces left by the first revolution. By suitable adjustment, the crosser web may be laid down at an angle of 45° and thus fully cover in one revolution. There is no difference in removing the bat after it is formed.

Wool-faced effects are often desired without incurring the expense attached to the manufacture of all-wool goods. In such cases it is practical to card a separate all-wool bat for the face, and a cotton-mix bat for the center or back of the goods. These two bats are united in the hardening operation to form one piece of goods. It is also possible to change the stock fed to the cards at the proper time and thus vary the composition of the mix in the desired manner, although this is a rather tricky operation. Stock oiling is necessary unless an electric condenser is used to remove static electricity. If oil is used, care should be taken to make an emulsion which will not adversely affect the fulling of the goods. It should be sprinkled on the mix when being laid down prior to blowing through the mixer. Uniform quantities should be used, and the stock should not lie too long before being put onto the cards, because difficulty will be experienced in getting accurate weights from the formed bats.

Piano felt and hair felt are formed quite differently and do not lie within the scope of this article. The succeeding article will deal with the hardening, fulling, and scouring of pressed felt.

Textiles Now Fifth Industry in Canada

(Special Correcpondence to TEXTILE WORLD*)*

THE textile industry of Canada has made notable progress during recent years and further development in 1931 has placed this group in fifth position among manufactures of the Dominion. In 1928, the value of all goods manufactured totalled $3,769,850,436, of which $415,402,464 was contributed by textile plants. In that year textiles as a whole were 11% of all Canadian manufactures.

There is no doubt that Canada's progress in the textile field will continue, especially in view of the recently enacted Canadian tariff law designed to safeguard domestic factors from the inroads of American and European competition. To fully appreciate the changes that have taken place in Canada, one has but to review comparative figures in the silk industry there over a period of twelve years. In 1917, there were 9 silk plants employing 824 individuals. The capital invested was $2,223,164. The total value of silk textiles during that year was $2,372,001. Twelve years brought a big change in the situation; 1929 discloses the establishment of 23 factories employing 4,372 persons and representing an investment of $28,278,657.

The Province of Quebec contains about two thirds of the Dominion's silk industry, as indicated by capital invested there in 1929 to the extent of $18,368,727. The Province of Ontario has $9,909,930 invested in silk activities within its boundaries.

American capital now plays an important part in the development of the silk fabric industry of Canada. Operating as domestic firms, United States-owned units do not have to contend with the tariff problems which face American mills desiring to ship into the Dominion. Furthermore, raw material sources are just as accessible and labor costs are not so high.

Other favorable aspects augur a flourishing future for the mills across the border, especially the preferential tariff arrangement between British colonies. In competition with American-made silks, Canadian fabrics could be imported by many countries at a lower cost. Australia, South Africa, British West Indies, India and Egypt are crown possessions and Canadian silk fabrics will receive an exporting advantage over goods from competitive nations.

▸ Finishing Activity for July Above Last Year

Operations in the finishing industry for July were considerably above the same month last year, according to figures showing percentage of normal capacity released by the National Association of Finishers of Cotton Fabrics. Compared with June, 1931, July operation was about the same with the exception of printing which declined. Percentage of normal capacity operated in the industry for July, 1931, July, 1930, and June, 1931, respectively, follow: white and dyed combined, 51%, 37% and 48%; fast black, 20%, 15% and 20%; logwood and sulphur black, 33%, 31% and 35%; prints, 43%, 30% and 47%.

▸ Cotton Statistics Show Improved Position of Industry

Statistical reports of production, shipment and sales of standard cotton cloths during the month of July, 1931, made public on Aug. 10 by The Association of Cotton Textile Merchants of New York, showed reduction in production rate and stocks at end of month. The figures cover a period of four weeks.

Production during July amounted to 192,545,000 yd. or at the rate of 48,136,000 yd. per week. This was 7.5% less than the rate of production during June.

Shipments during July were 211,331,000 yd., equivalent to 109.8% of production. New business booked during the month amounted to 158,353,000 yd., or 82.2% of production.

Stocks on hand at the end of the month amounted to 269,449,000 yd., representing a decrease of 6.5% during the month. This established a new low figure for stocks since these statistics became comparable on Jan. 1, 1928. Stocks on hand reached their peak at the end of June 1930, and since then the trend has been steadily downward, with a reduction of nearly 200,000,000 yd. since July 1, 1930.

Unfilled orders on July 31, 1931, were 277,597,000 yd., representing a decrease of 16% during the month, but they are still in excess of stocks on hand.

With unusually low stocks and a production rate below the average of recent years, the statistical position of the industry is exceptionally strong on the eve of the seasonal buying which is due during the third quarter.

▸ New Evening Textile School Offers Many Courses

Announcement has been made of the opening, in September, of the new Evening Textile High School and Trade School, at 351 West 18th St., New York, N. Y. The school is divided into two departments, the evening high school and the evening trade or technical school. The evening high school offers to young men and women working in textile and related trades an opportunity to complete a high school course after working hours by taking a combination of academic textile and technical subjects in one of the following courses: marketing, or textile business course; manufacturing power; chemistry and dyeing; costume design; general textile course.

Questions... *and* Answers

Cotton-Yarn Strength Irregular

Technical Editor:

We have been experiencing trouble for some time in the spinning of what is known as Government 1-in. cotton. The cotton, when received, is very carefully inspected by our classer, and seems to correspond in every way to our purchase specifications.

For some reason or other, some lots of cotton while being processed show a greater breaking strength than others. In each mix the mill uses nine bales, with at least six different marks of cotton per mix. Hosiery yarns are spun therefrom, and the twist used is as follows:

12s to 16s ring frame, square of 3.35
18s to 22s ring frame, square of 3.30
10s to 18s mule frame, square of 3.25
20s to 22s mule frame, square of 3.35
Double-hank roving is used in all cases.

These tests have been conducted not only in the summer months, but also during the winter and in the spring, when climatic conditions are better than they are at present. (7650)

With the limited information supplied with this inquiry it is rather difficult to give a concise answer. We understand that what you refer to as "square of" are twist multipliers. In the first place we are of the opinion that you are inserting insufficient twist in the yarns. This does not mean that your organization is entirely wrong; but a slight increase in the twist per inch, especially on this type of cotton, is often beneficial. We suggest that you make an end-breakage test on both the roving and spinning frames, unless you have already done so. This should be put in the hands of an independent investigator and he should be instructed to determine the cause of each break, if possible. An analysis of these results may indicate the source of trouble.

We are listing a set of items which, if carefully checked, should help you locate the trouble: (1) Humidity. The moisture content of the air should be kept constant both in manufacturing and testing. A low moisture content gives a low break in cotton yarn. (2) Spindle drive. Assuming that your spindles are band-driven, a careful check-up of these for the purpose of evening the tension will be beneficial. A loose band decreases spindle speed and causes weak yarn. (3) Waste. Make sure that your reworkable waste is mixed correctly. (4) Schedules. Ascertain whether or not your cleaning, oiling, and scouring schedules are strictly adhered to. (5) Roll settings. Check-up on the setting between the first and second rolls on the spinning frame. Closing this up a bit may be beneficial. (6) Drafts. If drafts are excessive, uneven yarn will be produced. This is a well-known fact, but 1-in. cotton is often drafted too highly. (7) Twist. Determine, by actual tests, the speeds of your spindles and front rolls, and then figure your twist in the customary manner. See if this corresponds with your theoretical value. (8) Picker laps. Weigh several laps from the same finisher picker and study the degree of variation. Also compare laps from different pickers. (9) Sizings. Make sizings on card slivers, rovings, and yarns. Take these samples from different sections of the room, as, for example, the middle, the end, the side, etc.

If all of these tests are carefully carried out, you should obtain a pretty good idea of the source or sources of your trouble. We lay particular stress upon the analysis of end breakage in spinning.

▼

Stains on Rayon Crepe

Technical Editor:

We are sending you by first-class mail one Bakelite steaming bobbin with black heads. This bobbin is filled with rayon crepe. You will notice that along one head there are several places where the yarn is discolored, giving an inky appearance. It is our customer's thought that this discoloration is due to bleeding of the black color in the Bakelite, although the Bakelite manufacturers say that such a thing is impossible. Will you kindly advise us just what in your opinion has caused this condition; whether or not there would be anything used in the conditioning of rayon which might have a chemical reaction when brought in contact with this Bakelite material; and also if your tests show that this discoloration will disappear in the boil off.

There is one other spot, indicated by pencil marks, which has a white appearance, and any information you can furnish on this point will be deeply appreciated. (7633)

We have examined both the white stains and the purplish colored stains near the head of the bobbin. We believe that both stains are due to moist steam condensing on this yarn near the Bakelite head.

We attempted to duplicate the result by steaming the crepe in a very moist atmosphere of steam and allowing hot steam and boiling water to blow upon the rayon crepe where it comes in contact with the head of the steaming bobbin. As a result of this test, we stripped the color and made the rayon white at this place, but did not produce any dark colored stains. It is our opinion, therefore, that these stains are not due to any color coming out of the Bakelite head. What has probably happened is that a particle or speck of blue or gray tint got on this head and when the yarn was steamed, this tint dissolved and caused these stains.

We removed the yarn from the bobbin, wrapped the bobbin with sterilized bandage, and boiled for 1½ hr. in a closed pressure kier with 15 lb. of steam pressure. We failed to make any kind of discoloration on the sterile gauze wrapped upon the head. We are confident, therefore, that the Bakelite head is not to blame for this discoloration.

We next boiled out the rayon crepe with a pure neutral soap and rinsed in warm water. After this treatment, there is absolutely no discoloration in the rayon. This indicates that the black deposit will be removed in the boil-off and that there is no danger of damaging the fabric.

We are returning to you under separate cover the bobbin, the sterile gauze, and the rayon crepe after it has been boiled off.

▼

Bars in Worsted Knitted Fabric

Technical Editor:

Enclosed you will find two lengths of cloth which show some bars, the cause of which is unknown to us. The material is knitted from dyed yarn. We should like to know whether the bars in question are caused by uneven dyeing or by uneven tension in the knitting. Our customer advises us that the machines on which he knits the yarn in question have two feeds, being of the flat-frame double-lock variety. We are sending you herewith a small cut right

across the piece of tubing so that you may follow one foot around the piece. *(7618)*

After an extensive study of the samples submitted, we feel that the trouble here is uneven worsted yarn. We have carefully analyzed the samples for the number of stitches per foot of yarn and find that there is practically no difference in the length of stitch at different feeds. A study of the twist in the yarns shows no differences in the yarns from different feeds. There is some variation in the twist in yarns from one feed, but the range of twist seems to average about the same in all the yarns tested. A study of the counts shows only a reasonable variation on the basis of 40-yd. lengths reeled as shown in the following table:

Counts for 40-Yd. Skeins

Feed	Weight, grains	Counts
1	31.8	31.4/2
2	31.0	32.3/2
3	31.4	31.9/2
4	30.6	32.7/2
5	30.9	32.4/2
6	31.6	31.7/2
7	30.8	32.5/2
8	32.1	31.2/2

The range here is from 31.2/2 to 32.7/2, which does not seem unreasonable. By winding this yarn on a heavy white cardboard, spacing the strands about $\frac{1}{8}$ in. apart, you will find that there are heavy places in the yarn. This does not seem to be confined to any one feed. We are sending you a few short lengths of the single yarn untwisted from a raveled end. These show clearly the heavy places you will note in yarns wound as indicated above.

The cause of the bars which you mention is the heavy place in the yarn. Being coarse, the yarn resists twisting at the heavy places, which drives some extra twist to adjacent lengths. This allows the heavy place to appear even coarser than it is. It is well known that additional twist will make the color of a yarn seem darker. In this case, the heavy place, having but little twist, looks lighter in color and so causes the bar.

If you count the courses from one bar to another, you will find they are not uniformly spaced, which goes to show that it is not one particular yarn nor one particular feed which causes the trouble.

Your customer is wrong. This tube was knitted on a machine having eight feeds, not two feeds; and it was a circular machine, not a flat one

▼

Irregular Spots on Run-Resistant Rayon

Technical Editor:

We are enclosing two sample swatches of circular knit rayon of run-proof construction, illustrating a defect which we cannot classify. We should appreciate your comments in connection with the cause and remedy for this defect. *(7638)*

The two sample swatches submitted showed irregular spots, each spot having a group of loose and distorted stitches. Due to the irregular size and shape of these spots, it is doubtful that the distortion was caused in knitting.

It is more probable that in scouring or washing the goods, folds or creases were present. This would account for small areas of tight stitches. Unnecessary strain or pulls on the fabric in finishing would loosen stitches at the weakest points, which would probably be next to the tight spots. Once the cloth has been dried and "set," it is next to impossible to remove these irregularities.

We believe that care in tensioning and spreading during the operations of scouring, washing, and drying would eliminate these defects.

▼

Warp Streaks in Crepe-de-Chine

Technical Editor:

We herewith enclose a sample of crepe-de-chine on which we have received complaints in regard to unevenness of color. Our customer said this was caused by the difference in nature of the raw silk. We are not convinced of this and should appreciate having your opinion on the matter. *(7652)*

The streaks are the result of not one, but several causes, which combined give the many streaks shown in the sample submitted. First of all, the warp stock is uneven to a certain extent. This is accentuated in the winding, warping, and weaving. The warp stock, in itself, is sufficiently uniform for the purpose of the weave, and the streaks would not show up to such a large extent if the necessary precautions had been taken to avoid them.

Somewhere the warp ends are allowed to slacken, these ends causing the major part of the defect. The operation in which the ends are not properly processed must, however, be determined by an investigation in the mill. We are inclined to believe that it is in the winder, warper, or loom.

Let us follow the process through the different stages. We shall assume that the silk is soaked and placed for the winders. The winders run some of the silk while still moist; and, as the silk is wet to a considerable degree, the thread is stretched by the swift weights as it is being wound. Now for another angle. The operations cease for the night, the skeins become dry over night, and in the morning the winders are making bobbins from dry silk with an entirely different tension on the thread. Quite naturally the results will show in the woven fabric.

As the bobbins are placed up and down in the warper creel, these ends will often be side by side, creating a heavy or light mark warpwise of the cloth. We strongly recommend winding dry for this weave. It is also a good idea to place the bobbins in the creel crosswise.

The streaks also seem to indicate that one of the shafts in the loom is lower than the others. It would be to advantage to inspect the loom weaving this piece, and to readjust the shed. Another possibility in this respect is that the reed may be too tight. If the reed is not free to move crosswise in the bed, when the warp moves to one side the reed dents become strained and tend to pile up the ends, although no reed marks appear on the cloth.

Find the reason for the slack ends and the streaks will be eliminated.

Inquiries should give the fullest information possible; and if damaged material is involved, a sample should be sent. We give no consideration to anonymous inquiries and do not undertake routine analysis of yarn or fabric, or investigation involving unusual expense.

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An Article Wanted

Technical Editor:

On pages 42 and 43 of your issue of Jan. 10, 1931, you published an article concerning the spooler heart-cam written efficiently by L. L. Kingsford. The article included a sketch of the building motion and explained its care and accurate adjustment. It included information on the care of the machine in general. It was a most useful article; and on behalf of the readers of TEXTILE WORLD, I wish to thank the writer and you for respectively writing and publishing this valuable information. Articles on winding machinery are scarce.

I wish that a similar article could be written on the Whitin long-chain quilling machine, which I am using. I beg of you to induce someone with Mr. Kingsford's ability to prepare such an article on that machine, accompanying it by a sketch of the building motion and including information regarding its care and adjustment. Helpful suggestions for the care of the machine in general would also be appreciated. I know that there are a large number of these machines in use and that a great many of your readers would welcome such an article.

I have read your magazine only three or four years, but I have made up my mind now to read it always.

(Signed) W. LUZERNE.

We have endeavored to find a potential author able and willing to write on the subject which Mr. Luzerne suggests, but have been unsuccesful. We wish to extend a cordial invitation to any reader familiar with this machine to submit an outline of such an article for approval. An acceptable article will be paid for at regular space rates.

Overseers' Round-Table

THIS department offers a new subject for discussion each week and gives readers' comments on problems introduced during previous weeks. The subject which was opened four weeks ago is closed this week and a summary of contributed ideas is given on opposite page

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On Dealing With Beg

"I NOTICED a couple of youngsters coming into the mill Monday morning," Superintendent Chase addressed the overseers, "and from the way they acted I judged that they were starting work for the first time. I have heard quite a lot of discussion on the subject and I'd like to have your opinions as to whether learners should be paid during their apprenticeships."

"Speaking from experience," Bill started off, "I know that when I started to work in the mill I was darn glad to get a chance to learn something and it never even occurred to me that I should be paid anything while I was learning. I certainly wasn't much of any good to the company, and what with the mistakes I made and the time it took someone to teach me I probably cost the company money as it was. Since that time nothing has changed my opinion that beginners should not be paid. You take a boy who goes to school to learn a trade. Certainly no one ever claims that the boy should be paid for going to school; in fact it sometimes costs the boy money. I can't see any difference in learning a trade in a trade school and learning it in a mill. I say, when the beginner begins to do work that is worth something to the company, he or she should be paid, but not before; the youngster should be glad of a chance to learn a trade."

"I'll admit that what you say are the good old arguments," Pete replied, "but to my mind they are old-fashioned and should have been buried years ago. When a youngster comes into the plant he comes to learn it is true, but he also comes to work, and he works hard and should be paid. I admit, of course, that the rate of pay should not be

Physical Examinations

Editor, Overseers' Round-Table:

I CANNOT agree with Bill that an employee's health is his own affair. It most certainly is the right of the company to inquire into the health of the members of its organization. There are, however, a great many companies to which the expense of examination would be a burden and I would suggest a modified plan.

Often, when a "green" young man is hired it is presumed that he will be with the company for several years. In this case it would pay the company to make sure that he was A-1 physically. Then, most companies ask prospective employees whether they carry insurance. Although this is not a guarantee it is a good sign if they are insured.

I think that, in all cases, there should be physical examinations for those performing hazardous occupations. A man considered for a dusty job should have good lungs; a man for heavy work should have a good heart; a man handling chemicals should not be sensitive to skin eruptions; a man around heavy traffic should have good eyesight and sound hearing.

R. H. SHAW,
Inspection Overseer, Russell Mfg. Co.

Visitors in the Mill

Editor, Overseers' Round-Table:

VISITS TO plants may be embarrassing to the visitors as well as the workers. While on a visit to England last summer, I received an invitation to look over a large works that I had previously been associated with. It was about 70 miles away from London and I was unacquainted with local events, so I was very surprised to find the place gaily decorated with flags, and a huge banner over the gateway bore the one word "Welcome." Usually I believe I am modest and unassuming, but I must confess I felt quite six inches taller as I passed beneath that sign. A moment later and I was conducted into the works, but I had scarcely entered through the doorway, when a deafening roar of cheering went up. My guide laughed and said "That was a good royal reception they gave you, was it not? You see we are expecting the Prince of Wales this morning."

If the Prince feels the same embarrassment on his many visits as I did I am truly sorry for him. But usually the embarrassment is on the worker, for many are self conscious and cannot work properly while being watched.

I recently heard of a firm that has an "at home" day once a year, when the wives, relatives and friends of the employees are invited to look over the mill. It is claimed that the workers take greater interest by being able to "talk shop" at home when those there have a knowledge of the mill and its work.

I would certainly favor these annual days of visiting as all the advantages and disadvantages are compressed into one day, leaving all the remainder of the working days of the year free from interruption. ALFRED C. LAYZELL.

Pensions

Editor, Overseers' Round-Table:

IN MY opinion if a company gives an old age pension to one section of its employees, it should grant the same to all, otherwise it sets one department up against another, and alienates the good will of the workers. Those who are subject to "lay-offs" and "short time" have little opportunity to provide for old age and they naturally feel keenly when

With Beginners

as high as a skilled operative, but it should be enough for the beginner to live on to let him or her feel like a real self-respecting worker. I believe that it is up to the company to assume the responsibility for training its own operatives with none of this bunk about it being a privilege to be allowed to come in and work and learn. Why, I have heard of cases where beginners were kept on a no-pay basis for month after month simply because they weren't highly skilled. Let the company pay beginners a fair wage and you'll get a lot better class of help. Even more, you'll find the beginners taking the job more seriously, learning faster, and giving the company a good return on the investment."

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Do *you* think that beginners should be paid during the period in which they are learning?

Overseers and others are invited to discuss this and other questions brought up in the super's talks. Letters accepted and published will be paid for without regard to length. Brevity is desirable.

they see men pensioned off who have had regular standing money year in and year out.

Assuming the White Mfg. Corp. give pensions to all its employees, and all are satisfied, it is of little comfort to those employed at the Black Mfg. Corp., who get nothing but "the gate" at old age.

But are we not liable to expect too much from the company, if we stop to think of the depressing time industry is passing through today? The granting of pensions to all was a different thing in pre-war days when practically every employee was there from boyhood to retirement, but in post-war times a man is there today and gone tomorrow. As vital as pensions are, the man of today is usually not worrying about them as much as he is in obtaining a job, and if industry can find work for all those who want to work, it can well be excused for putting aside old age considerations as a lesser matter.

The conditions of today are abnormal as a result of the World War. We cannot expect a recovery to normal conditions during our life time and industry should not be expected to shoulder the burden resulting from that terrible conflict. If men are, and have been, unable to provide for old age owing to the nation engaging in war, it is up to the government to take care of the aged.

I have taken great interest in the national insurance schemes of various countries for sickness, old age and unemployment. Personally I do not think national insurance for unemployment is workable or desirable for this country. Possibly for sickness it might be, but I feel certain it could be successfully applied for old age pensions.

Contributions could be the same as in England where the employer deducts a few cents each week from the employee, and pays a similar amount himself, as does the government. The money is not paid to the government, but to any lodge or insurance company the employee cares to nominate. The lodges pay out benefit under the supervision of the government. S. B.

Editor, Overseers' Round-Table:

The days of the "hard-boiled" organization and selfish stockholders and directors are rapidly passing. The textile industry is one of the world's oldest and largest industries and one of the last to give pensions to employees.

I believe every organization should set up some form of pension for the protection of employees. There are numerous mills today in which employees have spent 20 years working with one concern. The day the old fellow leaves the company he is forgotten; a new man takes his place and the company never knows what became of the old-timer.

I think the company should set up a pension fund whereby every man in the organization could be paid a certain amount each week or month, the amount depending upon the size of salary and length of service. Every man in the organization should be eligible, provided he can pass a physical examination when he joins the organization and is under the age limit. W. R. R.

Relation of Overseers to Workers and Management

Editor, Overseers' Round-Table:

Disputes or misunderstandings between the help and the management should be settled direct between these two parties, and let the overseer remain outside of the dispute.

As an officer of the management, it is an overseer's duty to stay on the side of the management, to show absolute loyalty to his superiors in cases from which serious labor trouble may result. By representing the workers in disputes between the management and the workers an overseer is working against the management and company, against his superiors, which means disloyalty, and in such cases an overseer should be discharged.

An overseer may forward such cases of misunderstanding from the help to the management, just as an officer of the army forwards cases of his company or regiment to the headquarter of his commander, for further consideration and action. Paul H. Eggenberger.

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Summary of Discussion on Visitors in the Mill

The consensus of opinion, as expressed in the letters received, was that it was unwise to allow many visitors in the mill. All the contributions made an exception in the case of visits from superintendents of other plants, and the like, but the majority stated that casual visitors disturbed the workers and should be limited to a few. A number of contributors, on the other hand, maintained that visitors cheered the workers up and made a welcome break in the monotony.

NEWS about MEN

W. L. Morris, who has served as secretary and assistant treasurer of the Clinchfield Mfg. Co., Marion, N. C., for several years, was recently elected president and treasurer of that concern to succeed the late B. Mabry Hart. T. F. Ellis, who has been connected with the mill since its organization in 1914, lately as assistant to Mr. Morris, was elected secretary to fill the vacancy caused by Mr. Morris' promotion. Harry M. Leslie of Leslie, Evans & Co., New York, who is first vice-president of the company, was acting president in the interim preceding the election of Mr. Morris.

John M. Abbot, president and treasurer of J. M. & E. M. Abbot, Ltd., Lowell, Mass., turned in his second hole-in-one shot recently at the Concord (Mass.) Country Club. He was playing the 167-yd. hole as one of a foursome in the weekly tournament.

Charles H. Robinson, president of the Elizabeth City (N. C.) Hosiery Co., will take over the management of the mills following the resignation of **W. C. Erdman,** former secretary and superintendent. Mr. Erdman resigned to become superintendent of two mills at Reading, Pa.

J. W. Cone, president of Revolution Cotton Mills, Greensboro, N. C., and president of the North Carolina Traffic League, will probably attend the hearing, before a committee of the Interstate Commerce Commission late in August at Atlanta, at which protests will be heard against the proposed increase of 15% in freight rates. **W. S. Creighton,** of Charlotte, N. C., secretary of the league, will also go to the hearing, it is expected.

Fred L. Smyre, Gastonia, N. C., has been elected secretary and treasurer of the Morrowebb Cotton Mills Co., Dallas, N. C. He succeeds Carl A. Rudisill, Cherryville, N. C., who recently resigned. **Marshall Dilling,** of Gastonia, who is associated with Mr. Smyre in the management of the A. M. Smyre Mfg. Co., and Parkdale Mills, Inc., was elected vice-president of the Morrowebb Cotton Mills Co.

John Sanford, chairman of the board of Bigelow-Sanford Carpet Co., Amsterdam, N. Y., is at his summer home at Saratoga Springs.

K. Ohtani, managing director of Toya Manka-Kaisha (Oriental Cotton Trading Co.), Osaka, one of the largest cotton manufacturing plants in Japan, spent a day recently in Charlotte as a guest of the Rotary Club there. He is in this country arranging for purchases of raw cotton. "There are vast differences between the operation of the textile industry in the United States and in Japan," he said. "In Japan, 95% of the operators are members of the Japanese Cotton Spinners Association, and the decisions of this body, are laws to its members. The association controls the industry and thus makes it much stronger than in countries where there is not so much cooperation between the various groups."

J. H. Reaney, general manager of the Union Mills, St. Johnsville, N. Y., is passing the summer at Canada Lake.

George Endicott, treasurer of the Dedham Finishing Co., East Dedham, Mass., has been appointed trustee of the bankrupt estate of the Samuel Winslow Skate Mfg. Co., Worcester, Mass.

William Le Bert de Bar, president of Hillcrest Silk Mills, High Point, N. C., and Berryville, Va., who will celebrate 50 years in the industry on his 80th birthday, Aug. 18. He was born in Hoerde, Germany, on Aug. 18, 1851. He learned the art of silk manufacture at Viersen, near Crefeld, and in his 30th year he migrated to the United States, finding employment in Paterson, N. J., as a hand loom weaver on dress silks. In 1889 he became superintendent of the Liberty Silk Mills, New York. In 1907 he accepted position with a Rhode Island mill. In 1916, at the ripe age of 65, he embarked in business for himself, in North Bergen, N. J. The plant started with 20 looms and by 1923 had expanded to 400. In 1925 the plant moved South where it has lately specialized in all-rayon cloths.

E. Kent Swift, treasurer and general manager of the Whitin Machine Works, Whitinsville, Mass., and family, are spending the summer at Falmouth, Mass.

C. M. Carr, commercial vice-president of American Enka Corp., Enka, N. C., sailed for the United States on Aug. 8 on the Cunard liner "Aquitania." The boat was expected to reach New York on Aug. 14.

Richard Lennihan, treasurer of the Hamilton Woolen Co., Southbridge, Mass., and Mrs. Lennihan, with their children, are passing the summer at Vineyard Haven, Mass.

James P. Whittall, second son of Matthew P. Whittall, president and treasurer of the M. J. Whittall Associates, Ltd., Worcester, Mass., has been elected vice-president of the company. He will continue as manager of the seamless division.

E. Gray Bost, assistant treasurer of the Cannon Mills Co., Kannapolis, N. C., suffered a painful injury to his left eye while playing golf. A piece of grit was blown into it.

W. B. Cooper, general manager of the Bigelow-Sanford Carpet Co., Amsterdam, N. Y., has returned after a vacation at the Bourbonnais-Kiamika Club, Que., Canada.

L. M. Fowler, general manager of the Palatine Dyeing Co., St. Johnsville, N. Y., is a member of a committee named by the chamber of commerce to campaign for new industries in that village.

E. Lee Skipper, for a number of years superintendent of the Fort Mill (S. C.) Mfg. Co., has been promoted to general superintendent of the company's two mills. Before being connected with the Fort Mill company, he was identified with the Lancaster (S. C.) Cotton Mills. During the World War Mr. Skipper saw service as an aviator.

W. J. Weeper, superintendent of W. J. Weeper & Co., Fonda, N. Y., has been elected president of the board of education of that city.

A. Stanley Helm, of South Manchester, Conn., superintendent of dyeing, printing and finishing for Cheney Bros. for 12 years, has been named plant manager of the Sussex Works, located at Newton, N. J., a unit of the Associated Dyeing & Printing Co., Inc. Mr. Helm, prior to his association with Cheney Bros., was connected for a similar period with the Glenlyon Print Works, at Phillipsdale, R. I. He came to this country from England 25 years ago.

James F. Nields, Jr., superintendent of the Ware Valley Mfg. Co., Ware, Mass., who holds a pilot's license and has done considerable flying, has purchased an airplane, the first resident of the town to own one.

M. M. McCann, formerly with the Sayles Bleacheries, Saylesville, R. I., has accepted a position as superintendent of the Burlington (N. C.) Finishing & Dyeing Co., which was recently organized by J. Spencer Love and associates.

William Beaumont, former assistant superintendent of the Page Mfg. Co., New Bedford, Mass., has been appointed superintendent to succeed John A. Mellor who has resigned. Mr. Beaumont graduated from New Bedford Textile School and went to the Page company as head designer following a number of years as designer at the Gosnold Mills Co., and Booth Mfg. Co., New Bedford.

J. **M. Gamewell,** treasurer of the Erlanger Cotton Mills, with a view to encouraging other cotton mills to follow the example of his company, was influential in having the operatives dress in uniforms of carded cotton broadcloth, as their particular contribution to the success of the "Wear Cotton" movement. This activity involved the cutting of 5,300 yards of material. The cloth for these uniforms was manufactured in the Erlanger mills and finished in their own finishing plant, the North Carolina Finishing Co. All the women employees are wearing these uniforms which means that 334 individuals own a total of 1,336 uniforms. The material was sold at cost price plus 1c. a yard for handling charges. More than half the women made their own uniforms.

Thomas **A. Campbell, Jr.,** former cost accountant of the Aragon-Baldwin Cotton Mills, Chester, S. C., and now with Ralph E. Loper & Co., Greenville, S. C., was married to Miss Mary Verner Spears, of Clemson College, S. C., on Sunday, July 19. Mr. and Mrs. Campbell will live in Greenville, S. C.

Robert **Chesebro,** who is connected with the Hand Knit Hosiery Co., Sheboygan, Wis., was in charge of arrangements for the golf party at the new Sheboygan Country Club, Aug. 12, for the western district of the National Knitted Outerwear Manufacturers' Association. This is their second party of the summer season, the first having been held on July 10.

Arnold **Friedlander,** a department manager at Phoenix Hosiery Co., Milwaukee, Wis., was married July 30 to Mrs. Dorothy Thompson in Wheaton, Ill.

Robert **H. Harris**, chemist for the Spalding Knitting Mills, Griffin, Ga., and

Women employees of the Erlanger Cotton Mills have adopted this cotton uniform as a contribution to the success of the "Wear Cotton" movement.

Miss Virginia Cooper, of the office of the Griffin (Ga.) Hosiery Mills, were married Saturday, Aug. 1.

O. Hughes, an English expert, will design the new tapestry and other upholstering materials which will be manufactured by the Ranlo Mill, near Gastonia, N. C.

J. H. McGinty, Jr., is in charge of the newly opened Atlanta, Ga. office of Haywood, Mackay & Valentine, Inc., of New York.

J. E. Brayshay, former cotton broker of San Antonio, Tex., has gone to Kobe, Japan. He will be connected with the Kobe office of Edward T. Robertson & Son, world wide cotton dealers.

Benjamin Healey of Powdrell & Alexander, Inc., Danielson, Conn., has been transferred to the Chicago office of the corporation, effective on Sept. 1.

John D. Weymouth, for 50 years an overseer of the Sanford (Me.) Mills Corp., has retired from the company and will devote his time to his real estate holdings. Mr. Weymouth plans to spend his winters in Florida.

James A. Quinn, a foreman, rounded out 62 years of consecutive employment with the Watson-Williams Mfg. Co., Leicester, Mass., last week.

J. J. Manning, New Bedford, Mass., has accepted the position of overseer of carding at the Linwood (Mass.) mill of Whitin Bros., Inc.

Walter M. Browning has accepted a position as loomfixer at the Rochdale (Mass.) Mills of the American Woolen Co. He is a native of that village.

Fred W. Kierstead, formerly with the Daniels Mfg. Co., East Brookfield, Mass., has accepted a position as overseer of weaving at the Caryville (Mass.) Mills of the Taft Woolen Co.

Thomas Cobb, overseer of carding at the Yantic (Conn.) Mills of the American Woolen Co., has accepted a similar position with the Standard Yarn Co., Worcester, Mass.

R. V. McLure, master mechanic in the Lowe Cotton Mills, Huntsville, Ala., and former president of the West Huntsville foreman's club, was seriously injured last week as a result of coming in contact with a live electric wire.

Obituary

Herbert S. Ide

Herbert S. Ide, president of Geo. P. Ide & Co., Inc., Troy, N. Y., died on Aug. 6 in his 62d year. He was elected president of the company in the spring of 1928 and first entered the firm in 1897. Mr. Ide was born in Troy, Jan. 14, 1870. Immediately upon graduation from Williams College he became connected with the Ide company and worked up through the various offices until on March 8, 1928, he was chosen president.

F. W. Warner

Frederick Harris Warner, for 25 years head of the New England division of the William Skinner & Sons, silk manufacturers, Holyoke, Mass., died last week at his home, Brookline, Mass. Mr. Warner was born in Enfield, Mass., Aug. 28, 1849. He was prominent in textile and club circles and is survived by two sons, Frederick Harris, Jr., and William S. Warner; and two daughters.

Herbert Bentley

Herbert Bentley, former vice-president and treasurer of the Sussex Print Works, Newton, N. J., and a director of the Associated Dye & Print Corp., which some time ago acquired control of the Sussex Print Works, died July 27, at his home in Sparta, Ga., where he had been living since his retirement from active business several years ago.

E. H. Hagan

E. H. Hagan, aged 33, for several years southern representative for Scott & Williams, hosiery machinery manufacturers, was instantly killed Sunday, Aug. 2, near Burlington, N. C., when his car was wrecked. Mr. Hagan was a native of Georgia but has been living in Burlington for several years.

John E. Moffitt

John E. Moffitt, for 40 years overseer of spinning at the Rochdale (Mass.) Mills of the American Woolen Co., died in St. Vincent Hospital, Worcester, Mass., on Aug. 7 from injuries sustained by being struck by an automobile while walking on the highway near his home in Rochdale on Aug. 3. He was 68 years old and a native of Massachusetts. He leaves a widow, one daughter and two sons.

George A. Estabrook

George A. Estabrook, boss spinner in the yarn department of the Bigelow-Sanford Carpet Co., Clinton, Mass., died at his home in that town on Aug. 10, after an illness of several months. He was 62 years old and a resident of the town more than 40 years. He leaves a widow and a son.

D. C. Dunn

D. C. Dunn, representative of the Stafford Loom Co., Charlotte, N. C., died at his home in that city Aug. 1 at the age of 52. His widow, two daughters and one son survive.

Textile Calendar

Carolina Yarn Association, Second Annual Golf Tournament and Outing. (Place to be announced later.) Sept. 18 and 19, 1931.

National Association of Cotton Manufacturers, Annual Meeting, Providence-Biltmore Hotel, Providence, R. I., Oct. 7 and 8, 1931.

Silk Industry Week, Paterson, N. J., Nov. 14 to 21, 1931, including Silk Machinery Exposition, Nov. 14 to 21; National Silk Convention, Nov. 18 and 19; Paterson Silk Institute, Nov. 14.

American Association of Textile Chemists and Colorists, Annual Meeting, Boston, Mass., Dec. 4 and 5, 1931.

Southern Textile Exposition, Textile Hall, Greenville, S. C., Oct. 17 to 22, 1932.

NEWS about MILLS

Cotton

Anchor Duck Mills, Rome, Ga., will deed a building to the city of Rome for use as a school for the first, second and third grades. It will be the property of Rome as long as it is used as a school.

Washington Mfg. Co., Tennille, Ga., manufacturers of duck, closed Aug. 1. The company expects to resume operations in the fall, and is allowing its employees the use of the mill village houses rent free.

West Point (Ga.) Mfg. Co. A new department of converting has been established under the direction of John T. Barker, formerly head of the traffic department for the West Point group of mills. The work to be handled by Mr. Barker and his assistants has hitherto been done at the New York office of the selling agents, Wellington, Sears & Co.

Annawan Mills, Inc., Fall River, Mass. Fire recently damaged a warehouse unit of this plant with loss estimated to be near $15,000, including building and stock. The damage will be replaced.

Union Cotton Mfg. Co., Fall River, Mass. The property of the company comprising 6½ acres of land in the business section of the city and 400,000 sq.ft. of floor space, brought one bid of $50,000 when offered for sale at public auction Aug. 5. The bid was made by Edward L. Hinchey, treasurer of the corporation, and the sale was adjourned without date. The Union Cotton Mfg. Co. is one of the oldest textile corporations in New England and recently underwent liquidation. The machinery has been sold and removed. A large number attended the auction, but there was only one bid.

Harmony Mills, Cohoes, N. Y., were shut for some time last week for repairs to their power plant which was struck by lightning.

International Lace Co., Gouverneur, N. Y., is negotiating with Henry Ford relative to the sale of an old loom brought here from England.

South Fork Mfg. Co., Belmont, N. C., has been chartered to manufacture yarns, cloth and textile fabrics. Authorized capital stock is $50,000; $7,000 subscribed by S. P. Stowe, A. C. Lineberger, and R. L. Stowe, all of Belmont.

Ranlo Mfg. Co., Modena plant No. 2, Gastonia, N. C., is installing 50 jacquard looms for the manufacture of tapestries and upholstery materials. It is planned to have the entire group of looms in operation by Oct. 1. The plant will continue the manufacture of tire fabrics and carded yarns on the same scale as in the past.

Cutter Mfg. Co., Rock Hill, S. C., has been on a three-day week during recent operations and will likely continue on that schedule for another two or three weeks.

Industrial Cotton Mills Co., Inc., Rock Hill, S. C., began operating a full 24-hour-a-day schedule last week, according to an announcement. This affords employment of 250 additional operatives by its full night run. Officials state that there are sufficient orders on hand to run day and night for about two months.

Woodruff (S. C.) Brandon Corp. has resumed night operations, according to a recent announcement, although capacity production on the night shift will not be attained in the near future. Approximately 350 operatives are employed on the day shift. It was stated that no plans were considered for the resumption of night work at either the Brandon of the Poinsett plants of this company at Greenville, S. C.

Altavista (Va.) Textile Co., Inc. An amendment to the charter of this company, of which R. L. Cummock is president, gives the corporation the right to redeem its preferred stock after July 1, 1934. Wilson, Kemp & Hobbs, Lynchburg, Va., are counsel for the company.

Canadian Cottons, Ltd., Montreal, Que., have contracted with the New Brunswick Electric Power Commission for a supply of 2,500,000 k.w.h. a year for its Marysville mill. One of the company's mills at St. John is still closed; a second unit, in the same city, is maintaining production at the present time. Canadian Cottons, Ltd., is reported to be operating in the region of 70% of capacity.

Dominion Textile Co., Montreal, Que., through the installation of equipment, will be able to manufacture velveteens and corduroys. The special lines which will be produced have hitherto been imported, largely from the United States. Operations will be started shortly to produce cotton and rayon corduroys, velvets and velveteens. The first unit is now in course of construction. Before the end of the year it is expected that the finishing plant will be in full operation.

Wool

Wilton (Me.) Woolen Co. has reached an agreement with the Maine Consolidated Power Co. whereby it will have a reduced rate and minimum charge covered by a five-year contract. This followed the denial by the Public Utilities Commission of proposed increase rates.

Taft Woolen Co., Caryville, Mass., which since the fall of 1929, has had only a few employees on its payroll, has resumed operations in all departments following the receipt of new orders. About 300 persons reported for work.

Hinsdale (Mass.) Woolen Mills. The property of this company, including three-story stone building, two-story wood building for finishing, three-story wood building formerly used as mill, water rights, gravel bank and several parcels of land, was sold Aug. 4 to Carl B. Lindholm, building contractor of Pittsfield, for $3,700, to satisfy a mortgage held by Strong-Hewat Co., North Adams, Mass. The purchaser plans to recondition the property and seek an occupant for manufacturing purposes.

Bigelow-Sanford Carpet Co., Amsterdam, N. Y., has completed miscellaneous improvements to its plant, including the installation of a new siren which will be used as a part of the fire-fighting system.

***Stillwater Worsted Co.,** Harrisville, R. I., has foundations in for a mill addition from plans drawn by Lockwood Greene Engineers, Inc., Boston, Mass. O. D. Purington & Co., Providence, is general contractor and Providence Steel & Iron, has the iron and steel contract.

Percelay Yarn Co., Pawtucket, R. I., has awarded a general contract to Henry M. Soule, for a one-story yarn mill, 67x92 ft. The mill will be on North Main St. It is reported to cost about $18,000 with equipment.

Knit

Musgrove Knitting Co., Pittsfield, Mass., has reelected its officers with Charles K. Ferry as president. The plant is operating at 80% of capacity.

Newport (N. Y.) Textile Co. is running on full time with a normal force.

Aetna Mills of the Wright's Underwear Co., Inc., Troy, N. Y., have completed plant repairs following damage done by a severe electrical storm.

Peerless Hosiery Mills, Inc., Burlington, N. C., will soon have an addition to its buildings, 30x65 ft., and a consequent installation of 40 Banner machines. Rodney L. Coleman, secretary and treasurer of the mills, stated that the modernization of the plant will be completed during August and that full-time operations will be started by Sept. 1.

Penn Hosiery Mills, Inc., Burlington, N. C., have added 24 machines to their equipment.

Pickett Hosiery Mills, Inc., Burlington, N. C. The installation of 40 new machines has been completed.

Concord (N. C.) Knitting Co., which has been inactive for several years, during which time its mill building has been occupied by the Willis Hosiery Mills, Inc., will resume operations in the near future. Machinery for the production of seamless hosiery will be installed at

**Indicates previous mention of project.*

once. As was announced recently, Hugh M. Gray will act as manager of the plant.

*Hoover Hosiery Co., Concord, N. C., is now installing machinery in its large addition recently completed on Kerr Street, Concord.

*Willis Hosiery Mills, Inc., Concord, N. C., recently purchased the old Brancord mill building and property on Academy Street from C. W. Byrd and J. A. Cannon. They are moving their equipment from the building which had been leased from the Concord Knitting Co. Some new machinery, in addition to that used at the previous location, will be installed, according to reports.

Marion (N. C.) Knitting Mills have closed a contract with Aetna Insurance Co., Hartford, Conn., whereby a majority of the employees are insured to the total sum of $103,000.

Vanity Fair Stocking Co., New Holland, Pa., is planning to increase the size of its mill by at least 50%, according to an announcement made by officers of this company. The addition will be connected with their present plant which now is 105x112 ft. The company was organized in 1929 by the Vanity Fair Silk Mills, Reading, Pa.; the New Holland plant was erected during the summer of that year. The plant already employs more than 200 men and women, and this number is expected to be increased as the new addition is completed and equipped with machinery.

Tulip Hosiery Co., Philadelphia. Albert A. Drucker and John P. Reynolds were appointed temporary receivers for the company under a bond of $30,000.

Indicates previous mention of project.

Silk

Malwin Silk Co., Paterson, N. J., recently organized with a capital of 1,500 shares of stock, no par value, to operate a local broadsilk mill, will be represented by Mendelsohn & Mendelsohn, attorneys, of Paterson. William Lowe and Peter Kapstein, also of Paterson, are the principal incorporators of the new company.

Season Silk Co., Paterson, N. J. has been organized with a capital of $25,000, to operate a local mill. It will be represented by Rosenfeld & Rosenfeld, Paterson, attorneys. The principal incorporators are Morris and Louis Miller.

Rayon

Industrial Rayon Corp., Cleveland, Ohio, is running on a capacity basis at its local plant as well as at the branch plant at Covington, Va. This activity gives employment to about 4,000 operatives at the two plants. The present schedule will be maintained for an indefinite time. Hiram S. Rivitz, president of the Industrial Rayon Corp., announced that his company is preparing to extend the scope of its Cleveland plant. Several hundred additional workers will be employed when Industrial starts up its transparent paper department.

Tennessee-Eastman Corp., Kingsport, Tenn. Work is nearing completion on the new one- and four-story mill unit, 100x580 ft. The installation of equipment for the manufacture of rayon yarns will soon begin. According to present plans, the plant should be ready for production early in October, and an increased working force will be needed. This plant will represent an investment of nearly $1,000,000. The company is a subsidiary of the Eastman Kodak Co., Rochester, N. Y.

Viscose Corp. of Va., Roanoke, Va. All production departments started on a full-time shift this week, it was announced by H. C. Neren, general manager. The employees, about 2,500, had been working on a 43-hour-week basis. The increase in working hours puts them on a 48-hour week basis.

Finishing

Consolidated Piece Dye Works, Paterson, N. J., have been granted a permit for the construction of a one-story dyehouse addition, 17x105 ft., at 87 Hazel St. The general contract was let to J. Schatmeyer. C. R. Rutan is the architect.

Embe Rayon Processing Co., Paterson, N. J., was recently chartered with a capital of $25,000 to operate a local mill. The company will be represented by Louis Nussman, an attorney of Paterson. The principal incorporators are Benjamin Berman and Maurice J. Weintraub, both of Paterson.

Kerr Bleaching & Finishing Works, Inc., Concord, N. C., plans to replace the damage caused at its mill by lightning and fire on Aug. 2. An official estimate of loss has not been announced.

TEXTILE WORLD Cotton and Wool Index Numbers

COTTON INDEX NUMBERS

Date	Cotton	Yarns	Gray Goods	Colored Goods	Aver. for Cloths	Group Average
July 31, 1914	100	100	100	100	100	100
1925						
January	192	197	195	173	184	187
April	196	194	193	180	187	188
July	197	183	185	176	181	182
October	174	189	193	178	186	186
1926						
January	167	175	177	162	170	171
April	153	163	161	155	158	159
July	149	149	151	141	146	147
October	106	141	147	144	146	143
1927						
January	107	134	140	140	140	138
April	118	136	143	142	143	140
July	143	149	156	145	151	150
October	168	176	184	169	176	176
1928						
January	151	163	166	166	166	165
April	164	160	160	165	162½	162
July	174	167	165	168	166½	167
October	157	161	162	164	163	162
1929						
January	162	166	158	169	163½	164
April	163½	164	157	173	165	165
July	149	160	149	166	158	158
October	147	160½	155	161	158	158
1930						
January	138	149	141	157	149	149
April	131	139	129	156	143	142
July	105	120	119	142	130	128
October	85	110	115	125	120	117
1931						
January	82	102	107	124	115	112
February	88	104	106	124	115	112
March	87	102	109	125	117	113
April	82	100	106	125	116	111
May	75	98	99	125	112	108
June	72	94	95	122	109	104
July	75	97	97	120	109	105

THE July indexes for cotton, yarn and gray goods in the cotton group, and wool and tops in the wool group were higher than in June. Colored cotton goods were two points lower, while worsted yarns and wool cloths were unchanged.

The raw cotton index touched a high of 80 in the first week of July, but fell off in succeeding weeks, and in the last week of the month was at 70, or five points below the July average. Yarn and gray goods prices were affected sympathetically. The indexes for the last week of each month appear to show the trend more clearly than the monthly averages; they are as follows:

	Cotton	Yarn	Gray Goods	Colored Good
June	80	96	96	119
July	70	95	95	120

The long continued decline in the wool indexes was checked in July, raw wool at 98 advancing one point, and tops at 111 being up 1 point. Worsted yarns and cloths were unchanged at 134 and 162 respectively. Inquiries regarding interpretation and use of these indexes may be addressed to TEXTILE WORLD, Statistical Dept., 1427 Statler Bldg., Boston, Mass.

WOOL INDEX NUMBERS

Date	Wool	Tops	Yarns	Cloth	Group Aver.
July 31, 1914	100	100	100	100	100
1925					
January	215	213	211	229	221
April	219	234	230	241	235
July	216	217	216	239	227
October	216	212	212	227	220
1926					
January	215	213	211	229	221
April	181	193	198	211	202
July	173	184	189	202	193
October	178	186	193	197	192
1927					
January	178	187	190	197	191
April	177	182	184	193	188
July	180	183	183	193	188
October	185	185	189	194	190
1928					
January	194	193	186	195	192
April	199	206	198	198	199
July	204	206	203	197	200
October	197	197	203	198	199
1929					
January	199	198	201	198	199
April	187	189	198	197	195
July	169	170	188	197	188
October	164½	169	188	197	187
1930					
January	148	161	177	197	181
April	127	139	164	186	167
July	125	135	158	184	163
October	124	135	154	180	161
1931					
January	112	127	148	178	156
February	106	122	143	178	153
March	101	112	139	174	147
April	101	112	134	167	143
May	100	111	134	162	140
June	97	110	134	162	140
July	98	111	134	162	140

New Machinery *and* Processes

Processing Machine for Tubular Knit Goods

ANNOUNCEMENT of the Tube-Tex processing machine, a new type of equipment for the wet finishing of tubular knit goods, is made by the Tubular Textile Machinery Corp, 27 West 20th St., New York. The machine is small and compact, and is suitable for handling all types and widths of knit fabrics ranging from light rayon goods to heavy cottons and worsteds for underwear and outerwear. Delustering, weighting, and softening of rayon fabrics are carried out either separately or in combination; weighing, softening, and filling of cottons are facilitated; and starching, stiffening waterproofing, and other processes are made possible. Special finishes and effects are also within the scope of the machine, so that novelty numbers can be produced.

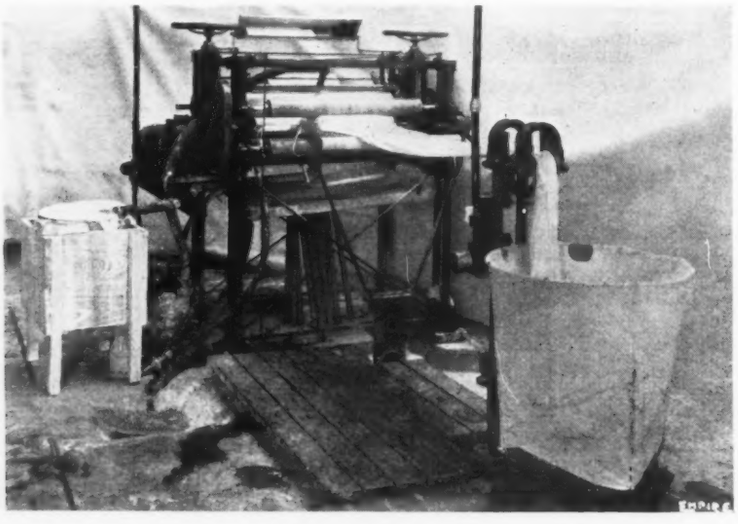
The machine takes its place as an additional dyehouse unit, without increasing or interfering with the dyehouse routine, and in many instances, aiding dyehouse procedure. Fabric to be treated on this machine may be wet or dry, and in rope or flat form. It is controllable in its tubular dimensions, both in width and length, as it passes through the machine in continuous, endless length.

The operation of the machine involves a padding action which gives a uniform impregnation with the finishing material and a squeeze accompanied by such variations in the physical propulsion of the fabric as is conducive to the result desired.

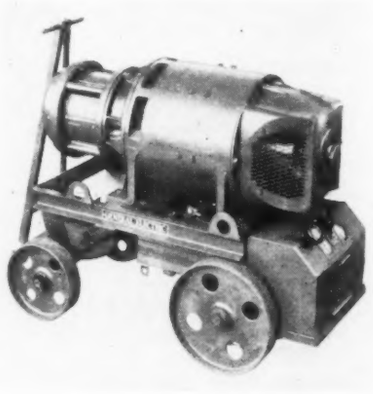
An ingenious part of this machine is a device called the "propeller spreader," which opens the fabric in its tubular proportions, and propels the fabric in this position entirely through rolling contact with complete control of the tube of fabric in all its dimensions. In this predetermined position, the fabric is impregnated, extracted, and wound on a roll or folded so that it passes into dryer, uniform in width and in flat form essential to even drying.

The spreader is made up of twelve driven rollers, which feed the cloth through the machine without frictional contact. It is adjustable in size to permit processing of fabrics of various widths and to allow changes from one width to another to be made quickly. The machine is designed to stretch the fabric to any desired degree both in width and length and to control the dimensions of the fabric at all times during the finishing treatment. Thus, it is said, finishing can be accompanied by a permanent increase in yardage ranging from 6% on rayon to as high as 15% on cotton. This feature is controllable, a simple adjustment allowing passage of the fabric either in its natural or stretched form.

The machine handles fabrics at the rate of 35 yd. per min. It is stated that finishes are produced at a minimum of cost, as there is no wastage of treating agents or chemicals, and the fabric after bleaching or dyeing and extracting is passed into the Tube-Tex machine without further preparation. Another advantage cited is the case of operation. Squeeze rollers are of sturdy construction, rubber covered and equipped with Timken bearings. Monel metal and nickel are used wherever necessary to prevent corrosion.



Propeller spreader on processing machine for tubular knit goods permits accurate control of fabric dimensions



Portable arc-welding set

Improved Welding Sets

SINGLE-OPERATOR welding sets in which are incorporated many improvements over previous designs are announced by General Electric Co., Schenectady, N. Y. These sets, of which there are five types, have been designated as members of the WD-20 line and cover ampere ratings of 100, 200, 300, 400, and 600 respectively.

The line includes both portable and stationary sets, the basic form being stationary with but a slight change needed to make it portable. Types include those for operation on either alternating or direct current at all standard frequencies, and two- and three-phase gasoline-engine-driven sets will also be available.

Among the principal advantages claimed for the line are the use of two-bearing construction on the a.c. types up to 600 amperes; compactness and light weight; and improved welding characteristics. The sets are self-ex-

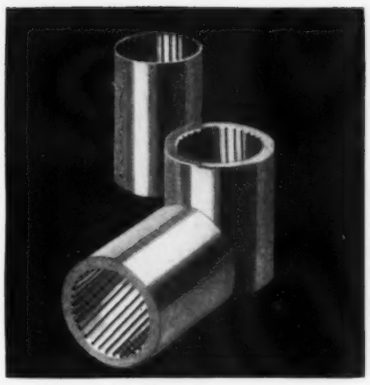
cited with a tapped-series field for major current adjustments and a shunt-field rheostat giving duplex voltage control.

A typical 300-ampere a.c. set stands 36 in. high, 50 in. long, and 23 in. wide, and weighs 1,865 lb.

Scouring Agent

IGEPON A, a new scouring agent of I. G. manufacture, has been placed on the market recently by the General Dyestuff Corp., 230 Fifth Ave., New York. This product is a representative of a new class of substances which, although chemically different from soap, possesses valuable washing and cleansing properties. This material is a white product of the consistency of soft soap; it has a slightly fatty odor, is neutral in reaction, and may be used in a neutral bath. It is stated that Igepon A is stable and keeps its cleansing properties even in an acid solution, is unaffected by water of any degree of hardness, and is not precipitated by metallic salts. In fact, lime soap already formed on the fiber is said to be dissolved by the product.

This new scouring agent is of particular importance in processing woolens and worsteds. It is recommended for scouring of raw stock, slubbing, yarn, and piece goods; in fulling certain types of fabrics; for aftertreating dyed materials; in scouring fabrics containing acetate yarn; in degumming and dyeing silk; and in finishing various types of fabrics.



Bronze bushings of self-lubricating type

Synthetic Wax

DEVELOPMENT of a synthetic wax having various textile applications is announced by Glyco Products Co., Inc., Brooklyn, N. Y. It is a light-tan-colored wax, melting at about 140° F. This product, known as Glycera Wax, is odorless, tasteless, and edible and said to be more soluble than natural waxes. Dispersion in water may be accomplished without the use of an emulsifying agent.

The manufacturer states that this wax may be employed to good advantage as an emulsifying agent for oils, fats, hydrocarbons, etc., useful in waterproofing and glazing textiles.

Self-Lubricating Bushings

DEVELOPMENT of new type of cast-phosphor-bronze bushing is announced by Johnson Bronze Co., New Castle, Pa. Adequate and lasting lubrication, uniform distribution of lubricant, long life, and reasonable cost are some of the advantages claimed for this bushing. Approximately 40% of the surface is graphite impregnated. The insertion of the graphite is accomplished by cutting dovetail grooves approximately $\frac{1}{32}$ in. in width into the bearing surface longitudinally on an angle of 7°. It is stated that in a fractional-horsepower motor running at a speed of 17,500 r.p.m., the new bushing has been tested continuously for 600 hr. with negligible wear on either the bushing or the shaft.

New Dyestuffs

PONTAMINE FAST BLACK GCW, a direct dyestuff which gives full shades of black on cotton or rayon and leaves acetate yarn practically unstained, has recently been announced by E. I. du Pont de Nemours & Co., Wilmington, Del. It is stated that dyeings produced are jet in shade and show less tendency to bronze than those produced with products previously offered for this type of work. The fastness to washing and perspiration is sufficiently good to allow of the use of this color on all kinds of hosiery, as well as for dress goods where it is desirable to leave the effect threads unstained.

BRILLIANT INDIGO 4B, 20% paste, recently announced by National Aniline & Chemical Co., Inc., 40 Rector St., New York, is a vat blue which produces clearer and faster tones than Indigo, and one that is applicable to wool and silk, as well as cotton, rayon, and linen. It reduces readily and is practically unaffected by those metals commonly encountered in dyeing machinery. It is well suited for reduced dyeing, pigment padding, and printing. The paste is homogeneous and grit-free. This product gives shades of excellent fastness to perspiration, mercerizing, cross-dyeing, acids, and hot pressing; and has good resistance to light and rubbing.

MILLING YELLOW O conc., another National product, is an acid color yielding pure yellow shades of excellent fastness to sea water, washing, perspiration, fulling, and rubbing. Its excellent fastness and discharging properties make it suitable for dyeing pure and weighted silk. It is particularly well suited for application on knitting yarns, raw wool, and slubbing, and it is especially recommended for flannel, bathing suits, and sweaters.

SUPRAFIX dyestuffs, a new line of products, has been announced recently by General Dyestuff Corp., 230 Fifth Ave., New York. These are INDANTHREN and ALGOL dyestuffs, which hitherto could not be successfully employed in textile printing, but now have been converted into a form insuring complete fixation after steaming for a short time in the rapid ager even in cases where the prevailing steaming and moisture conditions are apt to vary. Of these readily fixable vat dyestuffs, the following brands are at present available: INDANTHREN YELLOW 3G SUPRAFIX double, INDANTHREN GOLDEN YELLOW RK SUPRAFIX double, INDANTHREN YELLOW BROWN 3G SUPRAFIX double, INDANTHREN BRILLIANT VIOLET BBK SUPRAFIX, and INDANTHREN PRINTING BLACK BL SUPRAFIX.

The SUPRAFIX dyestuffs, are available only in paste form. In spite of the comparative liquid consistency, they have hardly any tendency to settle; and in addition, they do not dry out, the paste always remaining in a consistency which can be easily stirred, thus obviating hard particles which give rise to spotty prints. These products are printed by the usual potash-Rongalite process without previous reduction and without dissolving salt. The quantity of glycerine to be added depends on the local steaming conditions. As a rule, the SUPRAFIX dyestuffs require less glycerine than the ordinary paste brands. The addition of Glycerine A to the printing pastes is of advantage. These dyestuffs are also well adapted for padding, either by the caustic soda-hydrosulfite process or by the Rongalite-potash method.

NAPHTOL AS-LB, another product announced by General Dyestuff Corp., is a new NAPHTOL which, applied in conjunction with the various fast color bases, gives full, bloomy brown shades of excellent fastness. Owing to the excellent fastness to light and good fastness to climatic conditions of quite a number of combinations, the new product is recommended for those articles which are required to satisfy particularly high fastness to light. As regards fastness to washing, boiling, and chlorine, the brown shades are on a level with the well-known red combinations.

FAST CORINTH LB BASE, also marketed by General Dyestuff Corp., is a new FAST COLOR BASE, which, in combination with most AS-NAPHTOLS, produces bright reddish to bluish corinth shades of very good fastness. This product, apart from very good fastness to chlorine, has very good fastness to boiling caustic, and good to very good fastness to light of most combinations. Owing to these fastness properties, the new product can be recommended for use in colored bleached goods. FAST CORINTH LB BASE is suitable for use in all dyeing processes.

INDIGOSOL BLUE A G G is now available in this country through the General Dyestuff Corp., 230 Fifth Ave., New York, and Carbic Color & Chemical Co., Inc., 451 Washington St., New York. This product is of particular interest for fast wool dyeing. Like INDIGOSOL SCARLET IB, INDIGOSOL BROWN IRRD, and INDIGOSOL VIOLET ABBF, it is dyed on wool from a slightly acid bath, the shade being developed with bichrome and sulphuric acid in a fresh bath. The resulting dyeings are characterized by excellent fastness to light, washing, and milling. INDIGOSOL BLUE AGG is also employed to advantage for dyeing of rayon and real silk. When used on real silk, it is only recommended for wash styles. Owing to its poor affinity, the new dyestuff can generally not be used for cotton, but the padding process yields well-penetrated and uniform shades of good clearness.

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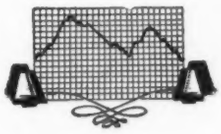

Wool Activity Counter to General Trend

By Dr. L. H. Haney

ASIDE from the settlement of the French strike, there does not appear to have been any improvement in the wool industry abroad. The threatened strike over wage reductions in Yorkshire has been postponed pending a ballot among the workers affected, but the threat to orderly production remains. The financial embarrassment of the huge Nordwolle in Germany indicates how widespread are the difficulties of the industry.

Since the first of the year surplus stocks of raw wool have piled up in the United Kingdom more rapidly than in either 1930 or 1929 and stocks of New Zealand crossbreds have become particularly burdensome. This easy supply situation, together with slack manufacturing activity, caused the decline in prices at London, despite large withdrawals.

Meanwhile, the activity of wool manufacturing in the United States continues to increase. The large gains made in the face of receding general business are analogous to the improvement of early 1921, which was followed by a long decline into 1922 while general business was improving. Worsted activity in June was the largest in recent years and indicates the approach of the cyclical peak which occurs at about two-year intervals. The lull in buying of worsteds in recent weeks and the reports that manufacturers are cutting into their backlog of orders suggests that a turn may be a matter of only a few months. The movement has been largely caused by distributors and cutters rushing to replenish stocks and finding that the manufacturers' policy of curtailment had reduced inventories below their requirements. It was sort of a short-covering movement in anticipation of a large consumer replacement demand, but retail consumption of Fall goods will probably not be of such proportions as to warrant a continuation of the recent wave of manufacturing.

Favorable Factors

1. The London auctions closed with a firmer tone; withdrawals were small in view of the adverse financial news and difficulties in Germany; Bradford strike postponed.
2. South American stocks are reported to be cleaned up. Stocks of tops in continental commission combing establishments on July 1, were 2,000,000 lb. less than on June 1.
3. Stocks of foreign wool at Boston on June 1, were below a year ago.
4. Foreign raw wool prices are still high compared with similar domestic grades. Some members of the trade believe that domestic prices will rise to an importing basis.
5. Medium wools are showing relatively more strength; a steady demand is reported for woolen wools.
6. The seasonally adjusted index of mill consumption increased in June; many dealers are reported to be behind on deliveries; mill stocks believed to be low.
7. Machinery activity made more-than-seasonal gains; worsted spindle activity was the largest since 1923.
8. The spinners' replacement margin has been firm to strong in recent months.
9. Knit goods demand has been large this season.
10. Dress goods buying became more active; stocks of worsted and dress goods are reported to be small.
11. Some popular cloths reported advanced in price.

Unfavorable Factors

1. The London auctions closed with prices for coarses grades as much as 10% below the close of the May series; withdrawals were 67,000 bales. Raw wool prices are considered out of line with top prices at Bradford.
2. The surplus stocks of raw wool accumulated in the United Kingdom since the beginning of the year amount to 200,000,000 lb.; the carryover in New Zealand is large.
3. Manufacturing activity abroad remains quiet; British piece goods exports are far below last year.
4. The stocks of tops in continental commission combing establishments, on July 1, were 5,700,000 lb. larger than last year.
5. The wool shorn in the United States in 1931 was 25,000,000 lb., or 7% more than last year; the world clip will probably exceed last year's.
6. Domestic receipts and imports of raw wool have increased in recent

Summary: **The increase in our wool manufacturing activity is running counter to the trend abroad and to general business. Domestic prices have strengthened and may show further gains while activity remains large, but a letdown in activity is probable and large wool supplies will hold any advance to moderate proportions. Worsted yarn prices may follow the trend of raw wool, but production needs careful control. Cloth prices seem likely to show some temporary firmness.**

The analysis and forecast by Dr. Lewis H. Haney, director, New York University, Business Research Bureau, which regularly appears on this page, considers various branches of the textile industry from week to week. The conclusions reached in the Analyst are mostly forecasts and generally apply to a time two or three months ahead. The Analyst is based on statistical data and does not reflect temporary trade sentiment.

Are you running a laboratory . . . or manufacturing *half-hose?*

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months. Total receipts are probably larger than mill consumption, suggesting increased stocks.

7. Worsted spindle activity appears to be too high compared with loom activity.

8. Woolen goods demand is quiet.

9. Manufacturers' replacement margins are near the post-war low.

10. Wholesale dry goods sales fell off more than usual in June and are well below last year.

11. Declining stocks and commodity prices; continued business recession.

12. Wool is dearer than cotton or silk.

A critical appraisal of the above factors indicates continued activity in the industry in this country while dullness prevails abroad. Foreign prices have declined while domestic prices have begun to strengthen. Further strength in domestic wool prices is quite probable as long as mill consumption is so well sustained.

But one result is that imports are already increasing, and there are some indications that receipts are gaining on consumption. Accordingly, stocks may be increasing. Furthermore, the wool industry is depressed abroad and a strike may occur in Yorkshire. Competition is keen, here, and the goods demand is confined largely to cheaper grades of worsteds and dress goods. Probably a more sustained improvement in woolen goods buying is needed to furnish the stimulus for a rising wool market.

Wool Prices Stronger

The Textile World index of raw wool prices increased last month for the first time in a year. The July index was 51.7% of the average for 1921-28, against 51.1% in June and 65.9% a year ago.

The index of mill consumption in June was 104.5% of the average for 1921-28, and represented a more-than-seasonal gain in the average daily consumption. The May index was 101.6% while that of a year ago was only 74.7%. (Note that the revised May figure declined from the April figure of 108-%.) The good showing of the wool-consumption figures, however, are partly due to the large gain in carpet wool consumption.

Imports have increased, but are low compared with consumption. Here, too, carpet wools were responsible for much of the gain.

Total receipts of raw wool have increased more rapidly than has mill consumption, and stocks are probably showing a more-than-seasonal increase, even though the gain is smaller than last year.

As long as the trend of consumption is upward and foreign prices are higher than domestic, raw wool prices in the United States will probably be firm in tone; but if stocks are on the increase a sustained advance is not likely.

Manufacturers Need Caution

The Textile World index of worsted sales yarn prices was 66% of the average for 1921-28 during June and July. This index compares with 78.8% last year. The yarn index has been unchanged since April, notwithstanding the unusual demand, but now that raw prices have begun to rise, possibly some gain is in store for sales yarns within a month or two.

Yarn prices have been fully as strong as raw wool in recent months. Worsted spindle activity, however, has been stepped up so much that it is the highest for the season since 1923. Much of this gain may have represented knitting yarn production, but not since 1923 has worsted yarn production appeared to be so out of line with weavers' requirements as represented by loom activity. While it is possible that the spinners may improve their replacement margin further if demand holds up, the indications are that unless production of yarn and cloth is better controlled, the spinner's replacement margin will eventually decline.

The decline in the Bureau of Labor Statistics' woolen and worsted goods price index has become more gradual, and the index appears to be approaching temporary stability. The June figure was 74.9% of the average for 1921-28, against 75.4% in May and 87.4% a year ago.

The Textile World index of wool cloth prices has been unchanged for two months.

Manufacturers' replacement margins were unchanged in May at the lowest level since early 1925. Wool prices declined in that month, yet the margin shows no gain. Competition was apparently too keen. Since loom activity increased more than usual in June and was the highest since October 1929, it is evident that production should now be carefully watched lest it become excessive.

Trade reports indicate that the flurry of buying is largely a distributor's problem. Men's wear worsteds, and then women's wear fabrics, have been most actively bought. But this buying was of Fall goods, and it does not represent purchases by the ultimate consumer. A similar movement occurred in Yorkshire earlier in the year.

Meanwhile, wholesale dry goods sales have slumped and indicate the poor general demand for textile products.

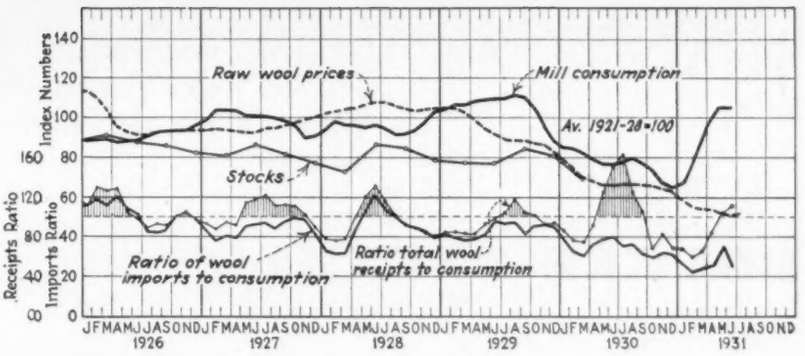

Fig. 1. RAW WOOL BAROMETER: Price—Textile World Index; Mill Consumption—Grease equivalent, average daily adjusted for seasonal variation, three-month moving average; Stocks—U. S. Total, grease equivalent, end of quarter, adjusted for seasonal variation. Ratio of Total Raw Wool Receipts in the U. S. to Mill Consumption—Receipts not reduced to grease equivalent, adjusted for seasonal variation. Consumption as above, three-month moving average. Average for 1921-1928 = 100 for all four indexes. Ratio of Raw Wool Imports to Mill Consumption—Imports not reduced to grease equivalent, adjusted for seasonal variation. Consumption as above, Average 1921-1928 = 50, three-month moving average.

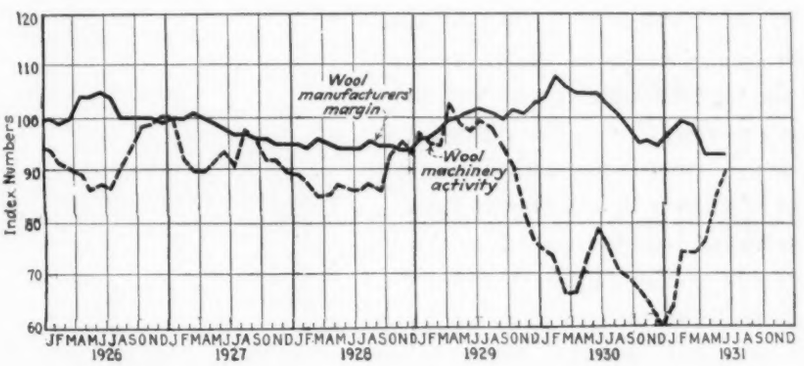

Fig. 2. WOOL MANUFACTURERS' MARGINS AND ACTIVITY: Wool Manufacturers' Margins—Average of replacement margins; Wool Machinery Activity—Composite of loom and spindle activity, adjusted for seasonal variation; Average 1923-1927 = 100 for both indexes.

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—TO MAKE A BETTER RAYON YARN

WE START at the very beginning to make Crown Brand a better rayon yarn — to give it greater strength, richer texture and smoother workability. We even control our own pulp production in a special plant with special corps of engineers. And all the way through we use the double-blend method. The pulp, for instance, is double-blended. The pulp-base of Crown Brand Rayon Yarns is a scientific compound of two basic materials. The required amount of each material is first built up by selecting small amounts from several sources of supply. The mixture of these small amounts forms the primary blend, and the compounding of two primary blends forms the double-blend and gives us the perfect pulp-base. Such painstaking procedure, of course, results in absolute uniformity of every ingredient and the superior strength and elasticity of Crown Brand Rayon Yarns may be traced straight back to this double-blend precision. The big point in our service is to help you find the perfect yarn for your specific purpose and deliver it to you in the form best suited to its economical use. Write here to headquarters freely on any problem in connection with rayon goods manufacture.

THE VISCOSE COMPANY

200 Madison Avenue New York City

YARNS AND RAW MATERIALS

TEXTILE WORLD ANALYST

◆Cotton Break Halts Yarn Sales

THE break in cotton last Monday following the issuance of the Government crop report on Saturday, carried cotton yarn prices down by 1 to 1½c. a pound for carded and about 2c. for combed singles. The situation finds the yarn market in the most unsettled condition experienced in many months. The estimated cotton crop yield of 15,584,000 bales was so much greater than either sellers or buyers had looked for that it was believed at mid-week that it might be some time before the trade recovers from the shock.

Low Prices Reported

Some business in carded yarns was transacted early in the week, at prices which were not disclosed. There were reports of sales of carded yarn having been effected on basis of 14c., but, while believed, the reports lacked confirmation. A sale of 22s single cones, was reported by a leading house as having gone through on the basis of 13½c. for 10s. It was the understanding a direct seller had accepted the low price while the market still was in its most upset state as a result of the slump in raw cotton, feeling at that time there could be no established price for perhaps a few days and that meanwhile buyers would be shopping around for bargains.

There had been some inquiry last week for carded yarns in both the weaving and knitting groups, doubtless intended to feel out seller sentiment and obtain a few quotations with which to play after hearing from the Government estimators. These buyers are said to have failed to show up this week. They were believed to be close to exhaustion of their yarn reserves, but as the drop in cotton was so much sharper than had been expected, were prepared to sit back a while longer, in the expectation of continued decline in cotton. So business in yarns this week represented the movement only of some underpriced lots and purchases out of stock for tiding over next report.

Figuring on an offer of 17½c. for 20s-2 warps, a southern spinner came back with a reply that to accept the bid would mean a loss of 3.62c. a pound. This price would be only 1c. under the inside of last week's range of quotations.

Combed Yarns Recede

Single combed yarns probably will be found to have suffered the more drastic decline by reason of the cotton break, some counts being reported 2c. lower than last week. In this group, as in carded, there is little interest, and prices cannot be said to be established on any level.

Mercerized yarn interests report no changes in their list and state business is near a standstill, due partly to the pending Reading hosiery strike.

◆Cotton Breaks on Big Crop Figures

PRIVATE reports published prior to the Government's crop figures of last Saturday had not prepared the trade for a crop indication of over 14¼ million bales and the average expectation was under 14 million as indicated by a canvass of Cotton Exchange members, which averaged in the neighborhood of 13,800,000 bales. The Government report, consequently, took the world's trade by surprise. There has probably never been a report further out of line with the average anticipation, of recent years at any rate, and the condition of 74.9 with a crop indication of 15,584,000 bales precipitated general selling.

Fortunately, perhaps, the report was published after the close of all the futures markets on Saturday with the exception of the market at Chicago. Prices there broke severely, of course, and declines at the reopening of the Liverpool and New York market on Monday might have been more severe than they were, had the trade not been given an opportunity to give the figures a day's consideration before operating. Another factor which broke the force of the blow to no small extent was the technical position of the markets. No doubt a large short interest had accumulated during the progress of the decline which preceded the Bureau and while this was somewhat reduced by pre-Bureau covering, much of it had been carried over the report. This naturally furnished an important demand on the decline, while there was also considerable trade buying to fix prices when the market broke to the lowest levels touched in futures here since 1900.

On the decline of the late nineties, or in 1898, November, an inactive month sold at 4.98 the lowest price in the records of the New York Cotton Exchange and December touched 5.06. On the break of Monday, October contracts in the local market sold at 6.70 and March at 7.26, making a decline of 376 to 400 points or about $20 per bale as compared with the high prices touched in the market here on the rally of late last June. October selling at 6.70 was within 164 points of the low record established for the December position in 1898.

Technical Position

These prices were low enough to check selling after the more urgent liquidation had been completed and in the absence of hedging. The new crop has not yet begun to move in any volume, and there appeared to be no hedging selling in anticipation of receipts. This left the pressure dependent upon liquidation of long accounts or speculative short selling and as soon as the market showed signs of having been liquidated, the supply of contracts tapered off sharply. Rallies have followed, but the demand has not been aggressive, and the supply situation has created a bearish sentiment, which is now finding its reflection in predictions of lower prices when the new crop begins to reach the market in volume. It will still be some weeks before the movement becomes heavy and, in the meantime, it is realized that much may happen.

In the first place, an Aug. 1 crop indication is decidedly an uncertainty contingent upon later season weather conditions, and even if the Crop Reporting Board has not over-estimated the Aug. 1 indication, there is a possibility of rapid deterioration during the balance of the season, while many believe that at present prices, all the cotton produced would not be picked. Moreover, recent developments in Germany have created a little more optimism with reference to Continental requirements for next season, and, taking one thing with another, there seems to be hesitation about selling cotton speculatively short at prices so far below the cost of production until figures on the estimated supply have been confirmed by later developments, or until the supply of contracts has been augmented by hedges against the coming crop. Under the circumstances, however, buyers are hardly expected to follow up advances

Market Briefs

Cotton: *Breaks to low for 30 years on large crop estimate.*

Cotton Yarns: *Prices reduced, but sales were few.*

Cotton Goods: *Prices weaker; reflecting raw cotton break. No buying.*

Wool: *Steady movement in wool; prices firm.*

Worsted Yarns: *Prices strong as users feel out fall situation.*

Woolen Goods: *Suitings continue active; 1932 prices slightly lower.*

Silk: *Sluggish demand brings 5c. drop in 20/22s and 13/15s.*

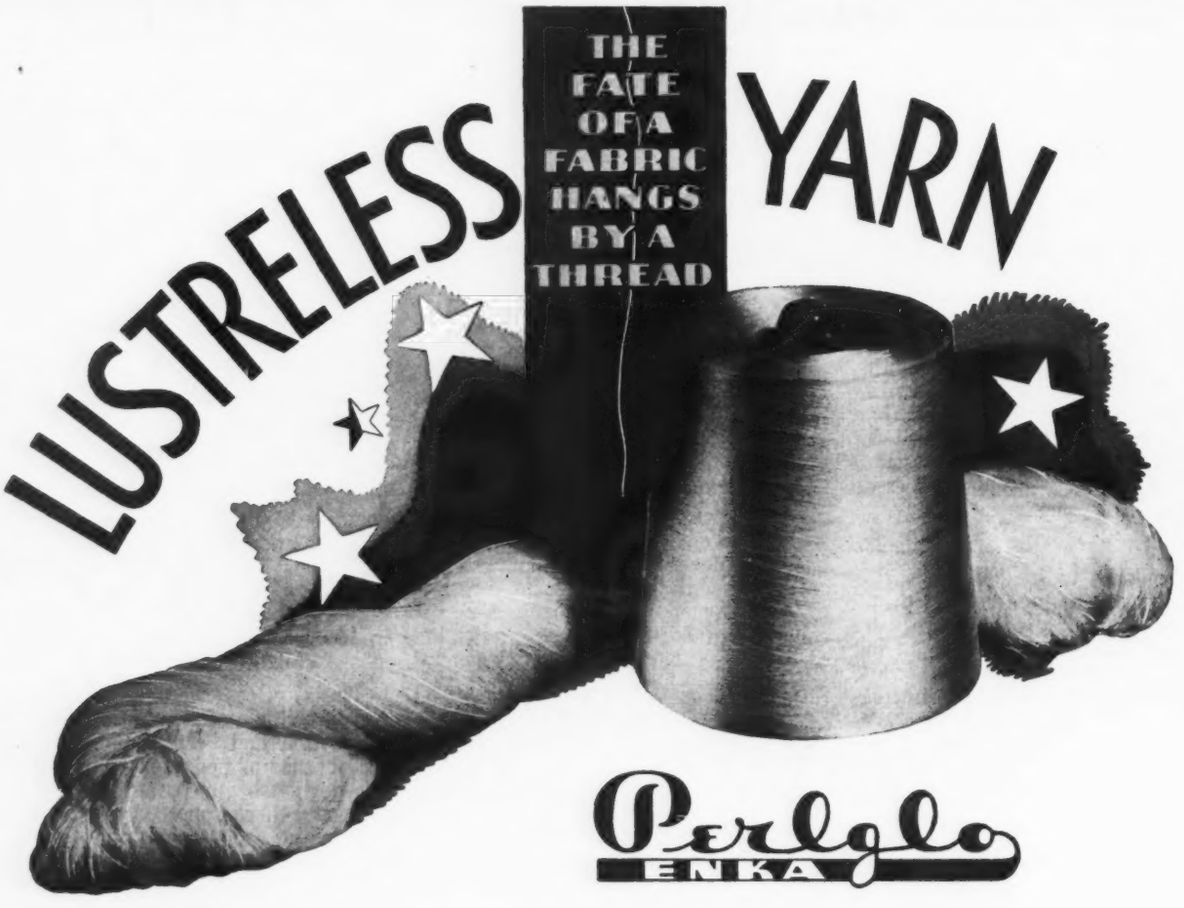
Silk Yarns: *Spun and thrown yarns both quiet.*

Silk Goods: *Good call. Possible satin shortage next month.*

Rayon: *Trend to futures; October buying improves.*

Knit Goods: *Full-fashioned hosiery demand slightly better. Winter underwear lines active. Swimsuit 1932 lines open at end of month.*

ENKA PERFECTS NEW



ENKA'S Perlglo yarn is made by a different process from that used for other low lustre yarns. The result is extraordinarily beautiful, with a luminous glow that lifts this yarn into a class of its own, away from other lustreless yarns on the market. Enka's Perlglo is a clear startling white, but it has the soft iridescent radiance and texture of a pearl—a marked improvement in low lustre yarns.

Enka's Perlglo differs from others in the original viscose solution, with which we spin the yarn itself in the regular way. The pearl-like glow IS the yarn itself—*therefore permanent.* Nothing is added that can be taken away. Hot irons and washing will not change the texture or brighten the soft pearl lustre.

Perlglo yarn measures up to the high standard of uniformity of denier, strength and elongation set by Enka for its bright lustre yarns. *Perlglo does not look like rayon as the trade has come to know it.* The iridescent pearl glow gives to the finished fabric a bloom closely resembling that of pure silk.

Enka Perlglo yarn will prove a distinct find to converters and manufacturers of fabrics, hosiery and underwear. Its whiteness and clean quality make it highly desirable for dyeing light colors. Tests show an unusual degree of both wet and dry strength, insuring satisfactory results in all kinds of processing.

Because Enka's Perlglo is strong, white, dull—made with full Enka quality *and under an exclusive original process*—the demand will be great. Immediate deliveries are being made to mills authorized under our Selective Control Plan. Get your orders to us now.

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YARNS AND RAW MATERIALS

TEXTILE WORLD ANALYST

at all aggressively until or unless some serious crop threat develops, while traders who hesitate to sell around the 7.00c. level for December may be encouraged to sell in the event of advances providing the crop appears to be making seasonable progress.

At present there are complaints of excessive moisture from some sections and of increasing boll weevil infestation, but they have not yet become serious or general enough to cause much change of opinion as to the crop outlook.

ESTIMATE A SHOCK TO MEMPHIS

MEMPHIS, TENN., Aug. 10.—Sales here during the week totaled 4,953 bales, a fairly good showing, considering the scarcity of wanted cotton and the fact that the Government estimate was due Saturday; sales the corresponding week last year were 2,217 bales; 2,532 the year before. Demand was mostly for specialties, the supply of which is practically all out of first hands, some merchants carrying stocks of good size.

So far forward business has been almost nil and prospects were helped none by the Government estimate, which was the greatest shock the trade here has received in many a year; the trade here expected a bearish report but an estimate above 14,500,000 bales was beyond the dreams of the most ardently bearish; average expectation was for an estimate of about 14,000,000 bales.

The weather during the week was favorable and the crop throughout this territory, and the belt generally, improved, although it is felt here that the Government estimate was more of a long-range forecast than a reflection of the condition at Aug. 1.

Sales for the week as they will be reported hereafter, according to a rule of the local exchange, effective Aug. 1, are really purchases and no distinction will be made between spot and f.o.b. transactions. It is expressed that sales reported will run to larger totals.

◆Waste Market Watching Cotton

AN already stagnant and demoralized waste market has been rendered still more so by the recent Government crop report, which estimate far exceeded the expectations of dealers and consumers. Business in wastes is at a standstill, prices are entirely nominal.

The thread section of the market was hard pressed this week. Many dealers, who have held stocks of white slasher and spooler for some weeks past in the hope that cotton prices would rise and enable them to dispose of their holdings at a profit, became discouraged at the outlook and offered these wastes at considerably lower values.

◆Worsted Yarn Sales Fair; Prices Strong

WORSTED yarns are moving to manufacturers in satisfactory volume, at prices unchanged from last week. Speaking of volume, some allowance is to be made for a shrinking in demand from the men's wear trade, weavers having passed the peak of their season and their production narrowing as orders for heavy weight goods become a matter of filling in. There still is some repeat business in yarns, but after ebbing for a few weeks, it has declined to a stage where activity may be mentioned for the present as only a recollection.

Instead of obtaining the advances for which they have been striving for two weeks, spinners mostly are content to accept the inside prices in the unchanged range. Thus far, at least they are sustained by values in the markets for raw wools, but to move prices a fraction higher has been found to be among the impossibilities, since there are spinners who for several weeks were taking comparatively little business in knitting yarns. At that time Bradford system 2-20s 50s were obtainable at 75 to 77½c. although one or two producers were asking 82½c. and getting it or not taking the business. Since spinners who had been selling at the lower figures have added 2½c. and are standing pat on the advances, others are able to sell at the former prices of the small group which attempted an upward revision. But the number accepting less than 80c. is understood to be near zero. Thus it would appear that with only a slight spurt in either tops or yarns, yarn prices will move definitely in the upward direction.

Taking up in part the slack occasioned by lighter sales of men's wear yarns, knitted outwear mills as a body are at their production peak since going to work on orders for fall. While this division is a heavy consumer of worsted yarns, this fact is not represented in current sales, as, it is related, most of the larger mills had contracted liberally while the prices of spinners who now are holding for a 2½c. advance were at the season's bottom. Yet there remains much yarn to be bought for approximately four months of high speed operation of knit goods plants, and some manufacturers are actively in the market, doubtless actuated by a desire to cover before values have gone higher.

JERSEY CLOTH YARNS ACTIVE

There is a good measure of briskness in single 26s, 64s, demand for jersey cloth still running strong. According to first hand information, buyers are able, in instances to get a deal through at $1.05½, the prevailing price being 2½ to 5c. more. Spinners feel that the outlook for a fairly brisk season for knitting numbers is exceeding bright, having in mind the prospect of virtually normal consumption by bathing suit manufacturers, some of whom are well advanced with their samples for the opening, and anticipate a larger volume of initial orders than at the opening a year ago.

◆Raw Wool Moves Steadily

THE wool market moves steadily forward with a satisfactory amount of mill purchasing and with prices either firm or evidencing a rising tendency. At no time during the year has demand been as broad as it is now and the situation of a month and a half ago, when fine worsted wools supplied the bulk of the business, has changed to one where three-eighths and quarter bloods are receiving their share of demand and where woolen wools are also moving more freely.

In fleece wools fine delaine has been notably steady; in fact the number of sales being put through at 26½c., grease basis, and even 27c. in some cases, has increased of late and fewer lots are available at the lower end of the price range. The bulk of sales of three-eighths blood are being put through in a range of 22½ to 23½c., grease basis, representing a gain of about ½c. per lb. over the prices prevailing last month.

Territory wools are also moving freely, particularly fine and fine medium in original bags. While it is impossible to point to any definite figure as representing the extent of betterment in prices, there has been a tendency to increase asking prices and the number of sales put through without concessions from original quotations reflects a stronger position.

Deliveries still constitute one of the problems of the wool trade. The large buying movement of late June put graders behind and demand since that time has been such that they have had little opportunity to catch up. Dealers have been content to have the market move along in an orderly fashion and have not attempted any sudden advances where demand was heavy, nor tried to force sales by giving concessions. Several statisticians predict that the present activity in the industry cannot be continued much longer, but the Boston wool trade sees no reason why the present steady progress should not hold almost indefinitely. It is pointed out that while it is possible to say with some justification that the 107% of single shift capacity operated by combs during June represents super-normal demand,

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—specks or spots from the tar used in marking.

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A solvent detergent with a Monopole Oil base which—

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YARNS AND RAW MATERIALS

TEXTILE WORLD ANALYST

the industry as a whole is just moving forward steadily, not spectacularly.

Top prices remain firm and, due to the fact that combing mills are filled up with business, deliveries are difficult. The top futures market has been gyrating about for the last week or two on fairly active trading, but has not shown any definite trend. As September approaches, and deliveries can be called for on contracts, there is considerable interest in what will happen. Boston spot prices continue to be about 5c. per lb. above September futures, an unusual situation in a commodity exchange, and the question is being asked whether the difference will be wiped out by a rise in September futures or whether the spot market will decline.

◆Rags, Wastes, Noils Marking Time

THE situation in the rag, rework and waste markets remains the same as last week, namely, a fairly optimistic view of the future but nothing notable in day-to-day business. The New York goods market is being closely watched and what seems to be a broadening demand for woolen materials supplies the main encouragement to an otherwise dull situation.

While waste prices are undoubtedly low, by this time it is evident that the market is not going to reflect stronger virgin wool prices. With the production of wastes running so high the only hope for a rising waste market is a very strong demand. While a few more inquiries are noted, and prospects for the future are brighter, there is no demand on the horizon which would force any important price advance in the face of large production. While quotations are nominal the drift of the market is shown by the fact that the range for fine white lap is now about 63-67c. against the range of 65-68c. which prevailed in mid-June. Thread wastes give evidence of being in better demand than the balance of the market.

Quotations for woolen rags are unchanged this week, as has been the case for some time, and the market waits hopefully for better demand. Some improvement has been noted of late and factors point to the very low level of prices as one factor which should help considerably in expanding demand once manufacturers show more interest in making up materials from this stock.

If production of noils was not running so high the present demand would be considered fair, but with large supplies coming on the market the best that can be expected is that prices will not weaken further. In this branch of the market also the attitude is one of looking forward to better times.

◆Silk Yarn Mills Hope for Early Pick-Up

ALL quiet, but with stronger confidence regarding end-August prospects, best describes current conditions in the silk yarn markets. Throwsters are in a mid-summer lull, and there is no demand from either knitters or weavers. A few small fill-ins were placed by broadsilk houses this week. Thrown silk manufacturers feel more encouraged regarding broadsilk outlook, in view of the fact that the strike has curtailed output. Several yarn factors frankly admitted that the credit situation was better, as the strike is helping to reduce fall fabric competition and may put the weavers who survive, in a stronger position. Throwsters look for a definite pick-up in buying around Labor Day.

Spun silk market conditions are unchanged. Fall business is backward, but this has not caused much uneasiness as fall is never a big spun yarn season. Spinners hope for improved buying next month, with the possibility of spring coverage beginning in October. Yarn in spinners' hands is limited and output is being carefully watched. The mills enjoyed a good call from woolen and worsted trade during spring, and they look for an equally satisfactory call beginning probably about Sept. 1.

◆Indifferent Buying Depresses Raw Silk

SLUGGISH buying sentiment has softened silk prices, especially futures, bringing a drop of 5c. on both 20/22s and 13/15s. The week is exceedingly quiet, more so than usual even for mid-August. Importers attribute the lull to various causes. The oppressive heat slowed up movement of fall fabrics and made weavers hesitate about covering in the primary market; the silk strike has curtailed output both in New Jersey and in New England; and, finally, silk reacted to the cotton break. The manufacturers, both knitting and weaving, are confining raw silk orders to absolute requirements of the moment, and as production is well behind normal for this time of the year on fall lines, their needs are light.

The partial settlement of the silk strike in the Paterson, N. J., area, brought some cheer to the primary market, and importers look for a decided pick-up at the end of the month. Mills have little or no silk on hand, and will be compelled to cover when fall fabrics show real activity. Raw silk stocks in New York are fair, but there is a scarcity of certain popular sizes in 20/22s; the spot market is stronger at this end.

There is little change in the Yokohama situation. Prices remain inordinately firm, and the long-term outlook points to a weakening after the main rush of fall buying passes. Yokohama has large stocks, and deliveries from the interior are much bigger than American demand would justify. Importers in New York expect home prices to tend upward at the end of this month, holding these levels for perhaps three weeks, after which an easing is expected.

◆October Rayon Demand Improves

INCREASED confidence in the fall outlook, as well as growing apprehension regarding a possible rayon shortage, has encouraged manufacturers to more active future coverage in yarn buying. Most of the large rayon producers are 65 to 75% sold up for August; September business already placed is heavy, and October orders are beginning to come in, in appreciable number. Both weavers and knitters are buying ahead, but the larger part of this business comes from the knitters. Cotton mills are still feeling their way, as regards fall prospects for rayon broadgoods, and they are producing very cautiously on all synthetic yarn lines. Silk mills are even quieter.

However, flat crepes represent the only division of rayon outlets which is really backward. In all other fields demand is steady; in many, it is voluminous to an unprecedented degree for midsummer. Knitters of rayon underwear have increased output, and they are buying two months ahead on yarn requirements.

Yarn production has been increased slightly, until it is now within a small fraction of capacity. The shortage of second grade yarns, which was a handicap to deliveries for several months, still exists, but to a lesser degree. Production of bright luster has caught up with orders, in the larger plants, and orders are being filled within two weeks of receipt.

Current buying by knitters is divided about equally between 100s and the 150s denier. Rayon producers view volume prospects as excellent. Price is still a big interrogation mark, so far as any advance is concerned. It is conceded that technically a rise would be justified right now, and assuming the normal ratio of increased buying during the next four weeks, such a tightening of quotations would be even more logical. However, there is a strong feeling of hold-back among producers; the prevailing sentiment seems to favor leaving prices as they are.

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a permanent white without weakening the fabric.....

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- Cotton, linen and other vegetable fibres where economy is a principal factor.
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The bleaching is carried out quickly, safely and economically. Better Bleached products are a certainty.

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- Operations where it is desired to produce hydrogen peroxide directly in the bleaching bath.
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- The R & H Kier System of Peroxide Bleaching. Here maximum economy is attained. This system uses Sodium Peroxide as well as Hydrogen Peroxide. In either case, the bleaching action is exactly the same. The process is simple—with no excessive handling or pulling—no harmful salts remain to weaken the fabric. The entire process is mild in treatment.

SOLOZONE-BLEACHED goods are permanently white. Washing, exposure to air or shelf storage does not yellow them. SOLOZONE bleaching makes possible the production of excellent finishes on material which is to be turned out as a market white. There are no chemicals left in the fibres to affect the finished results in any way.

SOLOZONE contains about 20% available bleaching oxygen, is a dry, stable powder, shipped in sealed cans or drums.

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100 vol. Electrolytic Hydrogen Peroxide

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25 vol. Hydrogen Peroxide

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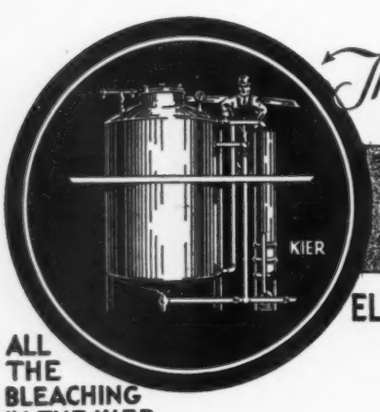

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FABRIC MARKET REPORTS

TEXTILE WORLD ANALYST

◆Cotton Goods Quiet, Prices Uncertain

THE sharp break in raw cotton last Monday which sent prices down to the lowest levels in thirty years, had the natural result of putting a quietus on business in the goods market. All the major fabric divisions slanted downward, and finally merchants were disinclined to quote at all, preferring to wait until conditions had adjusted themselves in the primary market. Retail and garment trade interest in cotton goods likewise waned, but cotton houses do not look for any prolonged lull. Indeed, in the last few days prior to the break, cotton goods enjoyed very fair movement, some firms reporting the best volume since the end of June. Both gray and colored lines were in active call through the first week of the month.

Cotton goods factors are not seriously disturbed by the primary weakness, and they scoff at the suggestion that the break may result in several weeks' inactivity at the fabrics end. It is pointed out that distributors and the garment trade have only negligible stocks of cotton goods on hand, and will be obliged to cover soon for September-October requirements. The big volume business placed in June has been pretty well assimilated. The technical position of goods is regarded as very satisfactory and this will serve as a brake on any pronounced downward trend, it is believed.

Underpricing of print cloths, sheetings and drills is reported, but this weakness is limited to a small group; stocks in mills are moderate, and lacking pressure to clear, it is unlikely that weavers will be in sympathy with a pronounced drop.

It is still too early to appraise the results of the Monday break in perspective, as regards reaction on fabrics; weavers have held closely to their curtailment policy and are in a healthy position on stocks, which may partially offset the raw cotton decline.

◆Crepe-Back Satins Lead Silk Fabrics

DEMAND for broadsilks continues its slow steady improvement and a subbstantial amount of business is being placed this week. There are plenty of piece goods buyers in the New York market and they are pressing mills for quick shipment of initial orders. Cutters also are increasing their coverage, but there is no great interest in futures from either outlet. Stocks are adequate to meet current demand and apparently as long as they can get spot delivery buyers restrict contracts to nearbys.

Weavers see possibility of a shortage of crepe-back satins next month, assuming that demand maintains present volume. All satins are in active call; black and brown are the favored shades, but there is also much interest in dark green and certain wine tones. Buying is spread over a wide price range, the main activity being in the medium-price lines. Mill numbers between 50c. and 75c. are best-sellers. Cantons also hold strong, and some shades are scarce, but stocks as a whole are equal to demand. Flat crepes are being sold at sharp reductions to effect clearance, and the special values have attracted good-sized orders.

Heavier Fabrics Moving

Mills specializing in silk-and-wool fabrics report steady buying and, while volume is limited as these are mostly novelties, the turnover aggregates an encouraging total.

Distributors are gradually gaining confidence. Apprehension as to the outcome of the strike has helped to stimulate buying; the labor troubles have not had any effect on the fabric market yet, but weavers watch the situation closely.

◆1932 Wool Goods Prices Slightly Lower

DEMAND for woolen and worsted goods has slackened, which mill agents attribute partly to the excessively hot weather of the month, and partly to hesitancy pending the opening of new spring lines. Men's suitings are less active than last week, but mills are still sold very solidly for the month, and these firms are producing at capacity, on the rather questionable theory that buyers will accept deliveries, no matter how much delayed these may be. There is some talk of possible cancellations in September, which might prove seriously embarrassing to mills that are relying on late shipments to assimilate their September output; far-sighted agents are inclined to discourage very late orders now, or at least, to specify very clearly that the deliveries will not be made during August.

The week brought the first of the 1932 showings, and staples opened at prices which seem to be slightly below this season. Exact comparison of levels is difficult, due to changes in selling terms and varying fabrics.

The fact that the cutters-up and the retailers as a whole have not bought more than 50% of their fall business so far, is being relied on in the goods trade, to support the belief that buying will continue well into fall. The policy is a dangerous one, and decidedly something of a gamble; though no one can say as yet that it may not prove right in the end. The buying groups themselves have no interest outside the present season, and they look for fall lines to continue selling almost indefinitely. It is a 100% hand-to-mouth season, and this goes as much for the man who buys the suit, as for the mill that weaves the fabric. The cutting-up trade confines its energies to pushing mills for shipment of current orders, and to promoting its own fall lines. Neither this division, nor the retailers, are more than mildly concerned with what mills plan for spring. The spring openings are gradually being pushed further into the fall, and now indications are that some offerings will be delayed until late September. A few men's suitings mills have received inquiries about 1932 lines, but the total is negligible against the number of inquiries mills usually get at this time. One piece goods buyer writing in, remarked that by this time in other years he usually had completed all his initial buying of spring fabrics.

The price trend for the new lines, especially staples and tropicals is downward; few official announcements have been made but in informal quotations tropicals are below last year. It is difficult to gage the amount of the reduction as the fabrics themselves have changed.

Overcoatings are slow, demand being limited to occasional light orders for quick delivery, and signs point to a very concentrated demand in September.

▸Causes of Unevenness in Vat Dyeings on Cotton Goods

(Continued from page 31)

because the seconds must be penalized and sold at a sub-normal price, while the firsts carry the burden. In fact, under present conditions, if the manufacturer of garments cuts up the pieces, and finds only after they have been sewed together that adjacent sections do not match in shade, he expects the finished to pay for the damaged garments.

It is quite evident that it is not going to be possible to hold any dyer to a standard sample as long as the goods themselves are not standard. It should be agreed, therefore, that color matches should lie within a broader band and that all goods will be accepted which do not appear darker than a certain standard or lighter than a second standard. The finished goods may be sorted into shades as now, a fool-proof plan of marking sections devised, and the making of garments will not suffer in any way; but the dyer and bleacher will be relieved of an unjust tax which is adding to the cost to both the manufacturer and the ultimate consumer.

KNIT GOODS MARKETS

TEXTILE WORLD ANALYST

◆1931 Swimsuit Sales Termed "Enormous"

THE buy-as-you-sell policy, plus an exceptionally oppressive August, are discouraging distributors from buying winterweight sweaters and the season, already two months behind, shows no signs of approaching normal. Orders are coming in at an increasing rate; but the volume of business now on the knitters' books is sadly small compared with that of other years at this time. Here and there, agents report spirited coverage, but neither jobbers nor knitters as a whole show real interest.

Bathing-suit producers are still debating their dates for opening 1932 lines. Numerous companies hold meetings of their sales organizations this week, and something definite regarding the showings will probably be known next Monday. Indications are the trade as a whole will not open before the first week of September, though a few firms are tentatively planning to open at the end of this month.

In lieu of any statistics as yet on bathing-suit sales, the following comment by a leader in the industry is interesting: "Bathing-suit sales this year have been enormous, and they may set a new record for the industry. Prices were far from satisfactory, as the margin was meager, but, so far as consumer acceptance is concerned, the industry has nothing to worry about. The mills did extraordinary business."

◆Good Outlook For Fall Underwear

HEAVYWEIGHT underwear is selling spiritedly both to jobbers and retailers. Production has been increased and stocks are more plentiful. Mill agents talk less confidently about an oversold condition next month. The outlook is good, though not sensationally so. Demand is well below normal and even steady buying for the next few weeks would still find the market far behind last season in sales. Stocks are light enough to offset any price weakness, but the prospects of a price tightening are not so strong. The tone is firm, however, and mill men take an optimistic view. Some companies report active movement and state that if current sales demand was maintained for a month they would find it difficult to ship orders.

A considerable part of the winter underwear business has yet to be placed; many small distributors and even a few of the chain groups have not sent in their initial orders, mill agents report. The knitters hope that Aug. 17 will bring a turn and that the second half of the month will see active coverage.

Lightweights carry along evenly, with both cottons and rayons in good call. Sales are less than July, but this is seasonal; turnover on the whole is satisfactory for this month, which is usually quiet. Retailers place numerous refill orders, and the stocks of both retailers and jobbers are understood to be low.

◆Unbranded Hosiery Advance Forecast

DEMAND for women's full-fashioned hosiery is uneven, with some mills reporting a better than normal August call. Prices are steadier, and the market looks for a possible advance in quotations on unbranded lines next month; there is much doubt as to the chance of branded lines going up. The stocks of women's irregulars which held back the firming tendency, have lessened, and the stock situation is regarded as considerably better. While the data on the full-fashioned stock survey made by the University of Pennsylvania is not yet available, it is expected that the figures will show stocks to be somewhat smaller than expected.

Manufacturers are still optimistic as to fall prospects for lace hosiery even at the low-price end, and in some instances, sales would seem to justify this view. One mercerized cotton mesh stocking has proved particularly successful and is sold six weeks ahead. Mesh numbers of synthetic yarn also are reported moving well. The best fall demand, however, leans to quality lines retailing at $1.75 and upwards, and manufacturers of these numbers are producing for stock, relying on September to bring spirited buying.

Half-hose continues very weak, with price almost the sole basis of purchase. Mills offering both 50c. and 75c. lines find sales confined largely to the former; the bulk of demand centers as usual on the 25c. and 35c. numbers. There is still an overabundance of half-hose available, and the outlook for this market is doubtful.

▸Strike Threat Spurs Reading, Pa., Hosiery Output

Prospects of a strike by the American Federation of Full-Fashioned Hosiery Workers against open shop full-fashioned mills in the Reading, Pa., district loomed larger this week, when Paterson, N. J., hosiery manufacturers were reported to have demanded that the wage scale there be lowered to the Reading level. The Paterson mills claim they cannot compete with Reading units, at present wages, and they want the new Sept. 1 agreement to allow for reductions. Meanwhile, Reading mills are planning increased output, to build up stock in anticipation of a strike. The Reading strike has been tentatively set for Aug. 24.

▸Machinery Exports Decline

Exports of textile machinery continued to decline in June but there was an upturn in various items. The increases were as follows: circular hosiery knitting machines (power driven); textile winding machines; wool carding and weaving machinery and silk machinery.

▸Foreign Cotton Spinning Better Than Expected

Advices on the cotton spinning industry in foreign countries are irregular and perhaps more favorable on an average than might be expected from financial conditions in Europe, according to the New York Cotton Exchange Service. There have been no reports of any general or appreciable reduction in cotton mill operations abroad, and various countries report that mills are selling as much yarn and cloth as they are producing.

▸Raw Silk Classification

(Continued from page 33)

as of that grade is subject to special agreement.

MISCELLANEOUS TESTS—SPECIFICATIONS

(A) *Winding Test*—The winding quality of raw silk depends upon the thread and skein formation and shows no fixed relation to grade. It, however, has a direct effect upon the manufacturing operations and should bear a general relation to quality. An interpretation is provided for grades of winding.

(B) *Size Range* — (ecart) While size-range in general indicates the uniformity of raw silk and bears a general relation to quality-grade it is measured by the difference between the values of the extremes in the sizing test and may be distorted by accidental or isolated values of single sizing skeins. It is therefore not included in the delivery limits indicated for auxiliary tests but is included in specification to provide gradations for those who may wish to specify it and to furnish a means of detecting raw silk which may contain mixed sizes.

(C) *Cohesion Test*—For those having requirement of specific values of cohesion and for the indication of degrees of cohesion, an interpretation is provided for grades of cohesion.

TEXTILE FINANCIAL NEWS

TEXTILE WORLD ANALYST

♦Belding Heminway Improves Position

A substantially improved position is reported by the Belding Heminway Co. for the six months ended June 30, 1931. This company reports a net loss of $207,493 after depreciation, interest, inventory write-down and reserve of $25,000 for loss on Belding savings bank account in Belding, Mich. This compares with a net loss of $1,155,381 in the corresponding 1930 period and a net profit of $191,296 in the same 1929 period, when the company earned 45c. per common share on 415,032 shares.

The balance sheet of the company, as of June 30, last, shows improvement over previous periods. Since the beginning of the year, the ratio of current assets to current liabilities has been increased to 85.63 to one from 61.83 to one. Cash has been increased, the 10-year 6% convertible gold notes outstanding have been reduced from $2,096,000 on Jan. 1, last, to $1,458,000 on June 30, 1931. Since the close of the first half of the year, the company reports a further reduction in the gold notes to $1,313,000, as of Aug. 4, 1931.

Inventories of $1,969,338, as of June 30, last, is more than 25% below inventories of $2,652,441, shown at the close of 1930. On June 30, 1930, the company's inventories were valued at $2,588,446 and on Dec. 31, 1929, they were valued at $5,307,404. Since the close of 1929, inventories are almost 63% lower.

Whitman Mills Sued on Notes

The First National Bank of Boston, Mass., has filed in the Suffolk Superior Court a $200,000 suit against the Whitman Mills, New Bedford, Mass., to recover a balance alleged due of $134,087 on two $100,000 and one $50,000 note made by the defendant in 1930 payable on demand. The notes were given for loans from the bank. All machinery, equipment and supplies and real estate of the defendant have been attached.

Wabasso Cotton Shows Profit

The Wabasso Cotton Co., Ltd., Montreal, Quebec, reports a net profit of $3,648 after depreciation, bond interest and other charges for the fiscal year ended June 27, 1931, which compares with a deficit in the 1930 fiscal year of $52,361.

The Jantzen Dividend

Jantzen Knitting Mills declared a dividend of 15c. on the new common stock, payable Aug. 1, to stock of record July 15, as previously announced. J. A. Zehntbauer, president, stated that this should not be construed as placing the stock on a permanent 60c. basis. He said stockholders would receive $1.27½c. a share for the fiscal year ending Aug. 31, compared with the regular dividend equivalent to $1.25 a share paid last year. An extra 50c. was voted last year. Mr. Zehntbauer speaks most optimistically of the trade outlook for fall.

Davenport Hosiery Profits

The Davenport Hosiery Mills, Inc., Chattanooga, Tenn., reports for the six months ended June 30 last net profit of $206,704 after charges and taxes, against $152,929 in the first half of 1930. For the quarter ended June 30, 1931, net profit was $108,687 after charges and taxes, as compared with $98,016 in the June quarter of 1930.

Mohawk Carpet's Good Half Year

The Mohawk Carpet Mills, Inc., Amsterdam, New York, report for the six months ended June 30 last, net profit of $231,170 after depreciation, interest, etc., against a net loss of $497,827 in the first half of 1930. Net profit in the first half of 1931 was equal to 38c. per share on 600,000 no par shares.

Adams-Millis Reports Profit

The Adams-Millis Corp., hosiery, High Point, N. C., and subsidiaries, report for the six months ended June 30, 1931, net profit of $451,620 after depreciation, taxes, etc. This compares with a net profit of $413,070 for the first half of 1930, and $442,060 for the first half of 1929.

Century Ribbon Profit

Century Ribbon Mills reports for the six months ended June 30 net income of $102,015 after depreciation, federal taxes, etc., against $54,600 in the first half of 1930.

Financial Briefs

Benrose Silk Mfg. Corp., 232 Madison Ave., New York, has arranged for an increase in capital from $150,000 to $300,000.

Blood Knitting Co., Amsterdam, N. Y., filed a certificate with the secretary of state, decreasing the amount of its capital stock from $630,000 to $423,000.

Cornell Mills, Fall River, Mass., has paid another dividend of 2% in liquidation, making a total of 7% to date.

Dividends paid by cotton manufacturers in July amounted to $3,393,028, according to the Standard Statistics Company of New York. Total cash dividend payments made by domestic corporations in July were $516,095,367.

▶ Southern Mill Stocks

(R. S. Dickson & Co., Charlotte, N. C.)

	Bid	Asked
Acme Spinning Co.	45	55
American Yarn & Processing Co.	40	45
Chadwick-Hoskins Co. (Par $25)	5	9
Chadwick-Hoskins Co., 8%, pfd.	80	86
Crescent Spinning Co.	40	47
Durham Hosiery, 6%, pfd.	16	22
Erwin Cotton Mills Co., 6%, pfd.	86	91
Flint Mfg. Co.	..	58
Flint Mfg. Co., 7%, pfd.	83	92
Hanes, P. H. Knitting Co.	7	10
Hanes, P. H. Knitting Co., 7%, pfd.	80	91
Linford Mills	45	55
Perfection Spinning Co.	47	63
Roanoke Mills, 1st. pfd. 7½%	42	48
Rosemary Mfg. Co., pfd., 7½%	71	78
Stowe Spinning Co.	40	51
WareShoals Mfg. Co.	..	100
Ware Shoals Mfg. Co., 7%, pfd.	..	85
Winget Yarn MillsCo.	..	42
Wicasset Mills Co.	120	135
(A. M. Law & Co., Spartanburg, S. C.)		
Avondale Mills, Ala.	525	650
Bibb Mfg. Co.	84	88
Clifton Mfg. Co.	..	75
D. E. Converse Co.	..	62
Dunean Mills	70	85
Dunean Mills, pfd.	94	98
Gossett Mills	..	30
Hunter Mfg. & Com. Co., pfd.	74	78
Judson Mills, A pfd.	83	86
Judson Mills, B pfd.	79	83
Monarch Mills	70	80
Newberry Cotton Mills	..	80
Orr Cotton Mills	35	40
Pacolet Mfg. Co.	..	50
Piedmont Mfg. Co.	..	70
Riverside & Dan River Mills(Par $25)	7	9
Riverside & Dan River Mills, 6%, pfd.	54	58
Southern Bleachery & Print Wks.,pfd	..	45
Spartan Mills	..	100
Union-Buffalo Mills, 1st pfd.	..	51
Victor-Monaghan Co.	35	37

▶ New England Textile Stocks

	Sale	Bid	Asked
Am. Mfg. Co., pfd.	52	40	45
Amoskeag	8¼	..	..
Arlington	18½	24	25
Associated Textile	35–36½	..	35
Bates	60	44	49
Berkshire Associates, com.	12⅜	5½	7
Berkshire Associates, pfd.	40½	24	26
Bigelow-Sanford, com.	32½	..	..
Boott Mills	120½	70	80
Edwards	80½	54	59
Esmond, pfd.	98	95	99
Farr Alpaca	35½	35	37
Hamilton Woolen	40	47	..
Hill	7	7	9
Indian Orchard	10	5	10
Ludlow	107½	104	107
Merrimack, com.	35	..	17
Nashua, com.	7½	8	10
Nashua, pfd.	29	29	..
Naumkeag	70	68	72
Newmarket	16½	13	..
Otis	45	41	45
Pacific	19	..	..
Pepperell	66½	66	69
Plymouth Cordage	63	67	70
York	8¼	6½	..

▶ Textiles on N. Y. Exchanges

The following shows the movements of the leading textile stocks listed on the New York Stock Exchange and Curb for the week ended Aug. 11:

	High	Low	Last Sale	Net Ch'ge
Adams Millis	29¼	26¾	29	+2¼
*American Thread, pfd.	3⅜	3⅛	3⅜	....
American Woolen	8¼	7½	8¼	+⅛
American Woolen, pfd.	36½	33⅜	36	—⅛
Belding-Heminway	4	3½	4	+⅛
*Blumenthal	11	11	11	....
Botany Mills, A	2½	2½	2½	—⅛
Cannon Mills	20½	20¼	20¼	+⅛
Century Ribbon	5½	5½	5½	—⅛
Collins & Aikman	13¼	13	13½	+⅛
Consolidated Textile	⅜	⅜	⅜	....
Durham Hosiery, pfd.	21	21	21	....
Gotham Hosiery	8¼	8¼	8¼	—⅛
Industrial Rayon	34⅞	29	34½	+4⅛
Kayser, Julius	14	13	14	+⅛
Kendall, pfd.	50	48	48	—4
*Mock Judson	7	7	7	—1½
Mohawk Carpet	17½	14	14½	—2⅛
Munsingwear	17½	17	17	—⅛
Pacific Mills	19	19	19	—2
*Pepperell	66¼	66½	66½	....
*Powdrell & Alexander	32	31½	32	—⅛
Real Silk Hosiery	6¼	6	6½	+⅛
*Tubize	5	5	5	....
United Piece Dye Works	18	17	17	—1
Van Raalte	10	10	10	....

*Listed on Curb.

QUOTATIONS

at close of business, Aug. 12, 1931

Prices cover average qualities unless otherwise stated

Cotton Goods

	Aug. 12	Aug. 5	Aug. 13, 1930
PRINT CLOTHS			
27 -in., 64x60, 7.60	2¾–3 c.	3¾c.	5½c.
38½-in., 64x60, 5.35	4⅛–4½c.	4½–4..c.	7½c.
39 -in., 68x72, 4.75	4½–4⅝c.	5½c.	8⅛c.
39 -in., 72x76, 4.25	5⅛–5½c.	5¾c.	9½c.
39 -in., 80x80, 4.00	5½–5⅝c.	6¼c.	10¼c.
BROWN SHEETINGS			
36-in., 56x60, 4.00	4¼c.	5½c.	8½c.
36-in., 48x48, 3.00	5 c.	5½c.	10½c.
37-in., 48x48, 4.00	4¼–4⅛c.	4¼c.	8¼c.
PAJAMA CHECKS			
36½-in., 72x80, 4.70	5¼c.	6 c.	9 c.
36½-in., 64x60, 5.75	4⅛c.	5–5½c.	7¼c.
MISCELLANEOUS			
Drills, 37-in., 3 yd.	6 c.	6 c.	10½c.
Denims, 2.20	11 c.	11 c.	17 c.
Tickings, 8 oz.	14 c.	14 c.	22 –23½c.
Standard prints	7 c.	7¼c.	9½c.
Eastern staple ginghams, 27 in.	7 c.	8 c.	10 c.

Cotton Waste

(Prices Nominal)

Peeler comber	5½– 6
Peeler strips	5 – 5½
Sak. comber	5 – 6
Choice willowed fly	2 – 2½
Choice willowed picker	2 – 3
Sak. strips	7 – 8
Linters (mill run)	2 – 3
White spooler (single)	4½– 5

Cotton Yarn

CARDED (Average Quality)

Double Carded 2c.—4c. higher according to quality

SINGLE SKEINS OR TUBES (Warp Twist)

4s to 8s	$0.15½	22s	$0.19
10s	.16	24s	– .20
12s	– .16½	26s	– .21½
16s	– .17	30s	– .22½
20s	17½– .18	40s ex. qual.	.32½– .33½

TWO-PLY SKEINS AND TUBES

8s-2	$0.15½	26s-2	$0.21
10s-2	– .16	30s-2	– .22
12s-2	– .16½	36s-2	– .28½
14s-2	–	40s-2	.29½– .30½
16s-2	– .17½	40s-hi.brk.	.32½– .33½
20s-2	– .18	50s-2	– .38½
24s-2	– .20	60s-2	– .44½

SINGLE WARPS

10s	$0.15½– .16	24s	$0.20½
12s	– .16	26s	– .21
14s	.16 – .16½	30s	– .23
16s	.17 – .17½	40s.ex.qual.	– .33½
20s	.18 – .18½		

TWO-PLY WARPS

8s-2	$0.15½	24s-2	$0.20½
10s-2	– .16	26s-2	– .21½
12s-2	– .16½	30s-2	– .22½
14s-2	– .17	40s-2 ordin.	– .30
16s-2	– .17½	50s-2	– .37½
20s-2	– .18½	60s-2	– .44

8s-3 and 4-ply skeins and tubes; tinged; 14–15 white, 16–17½; waste, 15

HOSIERY CONES (Frame Spun)

8s	$0.14½	22s	$0.19½– .20
10s	– .14½	24s	.20½– .21
12s	15½ – .16	26s	.21½– .22½
14s	– .16½	30s tying	– .21
16s	– .17½	30s reg.	.22½– .23
18s	– .17	30s ex.qual.	.25 – .26
20s	– .17½	40s	– .30

COMBED PEELER (Average Quality)

TWO-PLY—(Knitting Twist) Cones

20s-2	$0.30 – .30½	60s-2	$0.48 – .49
30s-2	.33½– .34½	70s-2	.58 – .60
36s-2	.35½– .36	80s-2	.68 – .70
40s-2	.37½– .38½	90s-2	– .95
50s-2	.41 – .42	100s-2	1.12 –1.15

WARPS, SKEINS AND CONES

TWO-PLY—(Warp Twist)

20s-2	$0.30 – .31	60s-2	$0.49 – .50
30s-2	.33 – .34	70s-2	.61 – .62
36s-2	.36½– .37	80s-2	.70 – .72
40s-2	.38 – .39	90s-2	– .95
50s-2	.44 – .45	100s-2	1.12 –1.15

SINGLES

12s	$0.24½– .25	30s	$0.31 – .32
14s	.24½– .25	38s	.35 – .36
16s	.24½– .25	40s	.36 – 37½
18s	.25 – .25½	50s	.40½– .41
20s	.26 – .26½	60s	.47 – .48
24s	.28 – .29	70s	.57 – .58
28s	.30 – .31	80s	.66 – .68

MERCERIZED CONES—(Combed, Ungassed)

26s-2	$0.47 – .48	90s-2	$1.18 –1.23
30s-2	.49 – .50	100s-2	1.48 –1.53
36s-2	.52 – .53	120s-2	1.88 –1.93
40s-2	.55 – .56	30s	.60
45s-2	.57 – .58	40s	.62
50s-2	.59 – .60	50s	.67 – .70
60s-2	.67 – .68	60s	.77
70s-2	.79 – .80	70s	.87 – .90
80s-2	.90 – .91	80s	1.05 –1.10

Cotton Prices and Statistics

FLUCTUATIONS OF FUTURES

	Closed Aug. 6	For Week High	For Week Low	Closed Aug. 12	Net Ch'ge
August	7.74	7.84	6.65	6.58	—1.16
September	7.88	7.98	6.79	6.69	—1.19
October	8.03	8.22	6.84	6.81	—1.22
November	8.15	8.25	6.80	6.97	—1.18
December	8.26	8.44	6.94	7.04	—1.22
January	8.38	8.56	7.05	7.14	—1.24
February	8.46	8.51	7.33	7.23	—1.23
March	8.56	8.76	7.26	7.33	—1.23
April	8.64	8.72	7.51	7.41	—1.23
May	8.73	8.93	7.45	7.49	—1.24
June	8.79	8.90	7.69	7.57	—1.22
July	8.86	9.08	7.62	7.68	—1.18

SPOT FLUCTUATIONS FOR WEEK

(Middling)

	New York	New Orleans	Liverpool
Thursday, Aug. 6	7.95	7.83	4.40
Friday, Aug. 7	7.95	7.83	4.29
Saturday, Aug. 8	8.05	7.83	4.44
Monday, Aug. 10	6.90	6.72	3.64
Tuesday, Aug. 11	6.85	6.65	3.71
Wednesday, Aug. 12	6.75	6.58	3.68

FOREIGN COTTONS

Egyptian Cotton

Alexandria Exchange, Aug. 11		Change
Nov. Sak	11.57	—1.55
Oct. uppers	7.59	—1.44

Aug.-Sept. Shipment c. i. f. Boston

(Tariff not included)

Fully good fair Sak	13.50
Fully good fair to good Uppers	9.75

(By Anderson, Clayton & Co.)

Foreign cottons	F. O. B. New York, Cents
Peruvian Tanguis Strict Middling	17
Peruvian Pima No. 1	16½
Peruvian Moderate Rough	13½
Peruvian Full Rough	17
China Tientsin No. 1	9½
India Rough	7 to 9
India Smooth	7 to 9

(By Bruns-Nordeman Co.)

BASIS MIDDLING

	Saturday, Aug. 8	Saturday, Aug. 1
10 markets average	7.50	7.60
Memphis	7.00	7.15

PREMIUM STAPLES

First Sales from Factors Tables at Memphis

Grade Strict Middling	Prices Nominal
1⅛-in	9.85@10.10c.
1 3/16-in	10.85@11.10c.
1¼-in	15.90@16.15c.

CURRENT SALES

	For Week	Previous Week	Week Before
Memphis total	4,953	1,375	1,520
10 markets	15,070	4,532	6,968

MEMPHIS RECEIPTS, SHIPMENTS, ETC.

	For Week	Last Year	Year Before
Net receipts	513	852	503
Gross receipts	4,744	5,204	5,115
Total since Aug. 1, net	513	971	692
Total since Aug. 1	9,761	10,911	13,367
Total stock	97,490	143,250	42,010
Decrease for week	5,017	5,707	1,893
Unsold stock in hands of Memphis factors	11,941	27,185	.....
Decrease for week	508	89	.....

AVERAGE PRICE AUG.-SEPT. SHIPMENT

HARD WESTERN COTTON

F.o.b. New England

	Middling	St. Middling
1 1/16-in	9 – 9¼c.	9¼–10 c.
1⅛-in	9½–10 c.	10¼–10½c.
1 3/16-in	11½–12 c.	12½–13 c.
1¼-in	Nominal	Nominal

Basis on New York, October, 6.93

SPOT FLUCTUATIONS AND STOCKS

Markets	Middling Aug. 5	Middling Aug. 12	Stocks Sales	Stocks This Week	Stocks Last Year
Galveston	7.90	6.70	404	397,881	181,139
New Orleans	7.83	6.58	425	570,154	305,860
Mobile	7.10	5.90	299	214,049	8,122
Savannah	7.47	6.23	68	333,482	104,127
Norfolk	7.75	6.50	540	53,925	46,817
New York	8.00	6.75	125	229,245	238,734
Augusta	7.63	6.38	1,073	62,325	47,208
Memphis	6.95	5.75	3,292	95,244	140,645
St. Louis	7.80	6.65	.....	.....	6,119
Houston	7.80	6.55	12,650	706,795	513,127
Dallas	7.40	6.15	6,626	5,914	10,472

DIFFERENCES ON AND OFF MIDDLING

WHITE GRADES

	Dallas	Memphis	Montgomery	Augusta	Average
M.F	.75†	1.00†	.85†	.75†	0.88†
S.G.M	.60†	.75†	.75†	.63†	.70†
G.M	.50†	.50†	.60†	.50†	.52†
S.M	.35†	.25†	.35†	.25†	.31†
S.L.M	.50*	.50*	.50*	.50*	.49*
L.M	1.00*	1.00*	1.00*	1.00*	1.00*
S.G.O.**	1.75*	1.80*	1.75*	1.75*	1.75*
G.O	2.40*	2.05*	2.50*	2.25*	2.36*
YELLOW TINGED					
G.M	.40*	.50*	.50*	.50*	0.47*
S.M	.65*	.75*	.75*	.75*	0.72*
M.**	1.25*	1.00*	1.25*	1.25*	1.20*
S.L.M	1.75*	1.75*	1.75*	1.75*	1.75*
L.M.**	2.50*	2.00*	2.50*	2.50*	2.40*
YELLOW STAINED					
G.M	1.00*	1.25*	1.00	1.00*	1.03
S.M.**	1.50*	1.75*	1.50*	1.50*	1.53
M.**	2.50*	2.00*	2.25*	2.50*	2.33
BLUE STAINED					
G.M.**	1.25*	1.25*	1.25*	1.25*	1.25*
S.M.**	1.75*	1.50*	1.75*	1.75*	1.70*
M.**	2.50*	1.75*	2.50*	2.50*	2.35*

**Grades not deliverable on contract. †On Middling *Off Middling.

Wool

OHIO, PENNSYLVANIA AND WEST VIRGINIA (IN GREASE)

Fine delne..	$0.25½–$0.27	¾ blood....	$0.22½–$0.23½
Fine clthg ..	.21 – .22	½ blood....	.21 – .22
¼ blood.....	.24 – .25		

TEXAS AND CALIFORNIA (CLEAN BASIS)

Texas, 12 months	$0.59 –$0.60
California, Northern	.52 – .53

PULLED—EASTERN (CLEAN BASIS)

A.A.	$0.62 –$0.65	B-Super...	$0.46 –$0.48
A-Super....	.50 – .53	C-Super...	.41 – .43

MONTANA, IDAHO AND WYOMING (CLEAN BASIS)

Stap'e fine	$0.61 –$0.64
Staple ½ bld.	.57 – .59
Fine and fine medium	.56 – .59
¾ blood	.49 – .51
½ blood	.44 – .47

MOHAIR—DOMESTIC

Best carding	$0.23 –$0.25
Best combing	.31 – .33

MOHAIR FOREIGN (IN BOND)

Turkey fair, average	$0.17 –$0.20
Cape firsts	.18 – .21

FOREIGN CLOTHING AND COMBING (CLEAN BASIS IN BOND)

Australia:	
70s	$0.53 –$0.55
64s	.46 – .48
58s-60s	.41 – .43
(IN GREASE)	
Montevideo:	
58s-60s	$0.19 –$0.20
56s	.19 – .20
50s	.16 – .17
Buenos Aires:	
4s, 40-44s	$0.14 –$0.15
5s, 36-40s	.12 – .14

FOREIGN CARPET (GREASE BASIS IN BOND)

Aleppo washed	$0.22 –$0.24
China: Combing No. 1	.13 – .14
China Filling Fleece	.12 – .14
Szechuen ass't	.12 – .14
Cordova	.14 – .15
Scotch black face	.15 – .17
East India: Kandahar	.17 – .19
Vican'r	.23 – .25
Joria	.23 – .24

Worsted Yarns

ENGLISH SYSTEM WEAVING

2-20s 36s	$0.75 –0.77½
2-24s 40s	– .85
2-26s 44s	.87½– .90
2-28s 46s	.92½– .95
2-30s 48s	.95 – .97½
2-32s 50s	.97½–1.00
2-30s, 64s fancy mixes	1.37½–1.45
(Single yarns 5c. less than above)	
2-36s, 58s	$1.20 –1.22½
2-40s, 60s	–1.25
2-40s, 64s	1.35 –1.37½
2-50s, 66s	1.45 –1.50
2-60s, 70s	1.82½–1.85

ENGLISH SYSTEM KNITTING

2-20s, 44s in oil	$0.75 –0.77½
2-20s, 48s in oil	– .80
2-20s, 50s in oil	.80 – .82½
2-20s, 56s in oil	.90 – .92½
2-20s, 60s in oil	1.10 –1.12½
2-20s, 64s in oil	1.20 –1.25
1-18s, 48s dyed	.97½–1.00
1-18s ,50s dyed	.97½–1.00
(Oil yarns 17½c. less)	

FRENCH SYSTEM

1-20s, 58s	$1.05 –1.07½
1-20s, 60s	1.10 –1.12½
1-18s, 64s, dyed	1.32½–1.35
1-26s, 64s	1.10 –1.12½
1-30s, 60s, Warp	1.20 –1.22½
1-30s, 64s, Warp	1.22½–1.25
2-30s, 64s, Fancy mixes	1.45 –1.47½
2-40s, 64s, Zephyrs	1.35 –1.40
1-50s, 66s	1.47½–1.52½
2-50s, 66s	1.50 –1.55
1-60s, 70s	1.85 –1.87½
2-60s, 70s	1.90 –1.95

FRENCH SPUN MERINO WHITE

1-30s, 50-50-58s on cops	$ .95 –1.00
1-40s, 50-50-60s on cops	1.10 –1.15
1-40s, 50-50-64s on cops	1.12½–1.15
1-40s, 50-50-64s Australian cops	1.20 –1.25

Underwear mixes, 3 to 5c., Solid color, 35c. additional.

New York Top Futures

	Closed Aug. 5	For Week High	For Week Low	Closed Aug. 11	Net Change
September	76.00	76.00	73.10	74.10	—1.90
October...	74.50	74.50	73.10	74.10	—0.40
November	74.50	74.50	73.10	74.10	—0.40
December	74.50	74.50	73.00	74.10	—0.40
January..	74.50	74.50	73.00	73.50	—1.00
February.	74.50	74.50	73.00	73.50	—1.00
March....	74.50	75.00	73.00	73.50	—1.00
April.....	74.50	74.50	73.00	73.50	—1.00
May.....	74.50	74.50	73.00	73.40	—1.10
June.....	.....	74.20	73.00	73.40	.....
July.....	.....	74.20	72.50	73.40	.....

Tops and Noils

TOPS—BOSTON

Fine (64-66s)	$0.85–$0.87
Half-blood (60-62s)	.78– .80
High ¾ blood (58s)	.70– .72
Aver. ¾ blood (56s)	.63– .65
Low ¾ blood	.60– .62
High ½ blood (50s)	.53– .55
46s S. A. and N. Z.	.51– .53
44s S. A. and N. Z.	.50– .52
40s S. A. and N. Z.	.48– .50

TOPS—BRADFORD, ENG. (JULY 31)

Fine (70s)	26½d	¾ bld. (56s)	16 d
Fine (64s)	23½d	½ bld. (50s)	12½d
¾ bld. (60s)	21½d	Cross-bred (46s)	10½d
¾ bld. (58s)	18½d		

NOILS—BOSTON

Fine	$0.38–$0.41	High ½ bld..	$0.31–$0.33
Half-bld....	.36– .38	Low noils...	.27– .30
Aver. ¾ bld..	.34– .36	Medium colored...	.24– .26
Fine colored.	.31– .33		

Wool Substitutes

WOOL WASTE

Lap, fine white	$0.63 –$0.67
Lap, fine colored	.46 – .50
Hard ends, fine wh te	.52 – .55
Hard ends, ¼ blood white	.35 – .38
Hard ends, fine col red	.25 – .27
Hard ends, medium colored	.18 – .20
Card, fine white	.23 – .26
Burr, fine Carbonizing	.27 – .30

OLD WOOLEN RAGS (GRADED FOR MFRS.)

Merinos, Coarse Light	$0.05 –$0.05½
Merinos, Fine Dark	.03½– .04
Merinos, Fine Light	.11 – .11½
Serges, Blue	.05½– .06
Serges, Black	.05½– .06
Serges, Red	.08 – .09
Knit, White	.22 – .23
Knit, red	.10½– .11
Knit, Light Hoods	.12½– .13½
Worsted, Light	.05 – .05½
Worsted, Blue	.05½– .06
Worsted, Black	.06 – .06½

Silk Yarns

THROWN SILK (60 day basis)

	Nominal
Japan organzine, 2 thd. spec. gd. XX. sk. 85%.	$3.85
Japan organzine 2 thd. grand sk. 83%	3.70
Japan organzine, 2 thd. sp. crack. sk. 81%	3.55
Japan crepe, 3 thd. gd. XX bob. 83%	3.65
Japan crepe, 3 thd. sp. crack. bob. 81%	3.50
Japan grenadine, 4 thd. sp. grand singles, 87%	4.95
Japan grenadine 3 thd. 90%	5.70
Canton crepe, 3 and 4 thd. ns. 14/16 on bobbins	2.60
Hosiery tram, 3 thd. Japan 90%	4.75
Hosiery tram, 5 thd. Japan, 85%	3.60
Hosiery tram, crack XX 78%	3.25

SPUN SILK YARNS (Terms: net 30)

40/2	$3.10	60/2	$3.45
54/2	3.30	62/1	2.35

Raw Silk

(60 Day Terms. Spot Goods.)

	13/15 White	20/22 White	20/22 Yellow
Super Grand, 87%	$3.05	$2.50	$2.35
Special Grand, 85%	2.85	2.40	2.30
Grand XX, 83%	2.70	2.35	2.25
Special Crack, 81%	2.60	2.35	2.25
Crack XX, 78%	2.50	2.30	2.20
Extra Extra, 73%	2.45	....	....
Best Extra, 68%	2.40	....	....
Canton filature, new style, 14/16			$1.65
Canton filature, new style, 20/22			1.55
Tussah filature, 8 cocoon			1.05

NATIONAL RAW SILK EXCHANGE

	Close Aug. 5	For Week High	For Week Low	Close Aug. 11	Net Chg.
August	2.31	2.33	2.27	2.35	+.04
September	2.29	2.30	2.25	2.33	+.04
October	2.29	2.29	2.25	2.33	+.04
November	2.28	2.28	2.24	2.31	+.03
December	2.28	2.28	2.24	2.30	+.02
January	2.28	2.28	2.25	2.29	+.01
February	2.27	2.28	2.24	2.30	+.03
March	2.28	2.28	2.24	2.30	+.02

Total number of bales, 2,660. Total approximate value, $892,139. Trading unit crack XX 13/15 white 78%.

Domestic Rayon

VISCOSE PROCESS

Denier	Filament	First	Second
50	14	$2.15	$1.95
75	18-30	1.35	1.25
100	18-40	1.10	1.00
125	36-50	1.00	.90
150	30	.70	.67
150	24-40	.75	.72
150	60	.85	.82
150	75-90	.85	.82
170	24-27	.75	.72
170	60	.85	.82
200	30	.75	.72
200	35-42	.75	.72
300	42-62	.63	.60
450	54-60	.63	.60
600	72-96	.63	.60
900	100-144	.63	.60

NITRO-CELLULOSE PROCESS

Denier	First Qual.	Second Qual.	Denier	First Qual.	Second Qual.
75..	$1.35	$1.25	150....	$0.75	$0 72
100....	1.05	.95	175....	.75	.72
125....	.95	85			

CUPRAMMONIUM PROCESS

Denier	Filament	Price	Denier	Filament	Price
15	24	$3.10	65	45	$2.00
25	24	2.85	80	60	1.70
30	24	2.60	100	75	1.35
40	30	2.40	120	90	1.22
52	30	2.20	150	112	1.10
			180	135	.97

ACETATE PROCESS

Denier	Price	Denier	Price
45	$2.25 2.75	120	$1.90
55	2.05-2.55	140	1.30
65	2.45	150	1.40-1.85
75	1.80-2.70	200	1.55
100	1.65-2.45	300	1.50

Rayon Waste

Open bleached waste	$0.13–$0.14
Open unbleached waste	.10½
Bleached thread waste (nfs.)	.09
Bleached thread waste (misc.)	.06– .07
Colored thread waste	.03– .04
Colored clips	.03– .04

CONVERTED RAYON WASTE

Bleached tops	$0.30–0.32½
Unbleached tops	.28– .29
Bleached noils	.11
Unbleached noils	.09½
Bleached garnetts	.12
Unbleached garnetts	.13
Colored garnetts	.10– .11

Silk Waste

Kibizzo Kakai Grand XX	$0.50
Kibizzo Kakai Triple Extra	.44
Frison Grand Double	.49
Pierced Cocoons	.50

▸ Callaway Advocates Fabric or Rubber Belts

The replacement of leather belts by fabric or rubber belts in textile mills is being advocated by Cason J. Callaway, president of the American Cotton Manufacturers Association, as another way in which the consumption of cotton may be increased. In making his latest announcement, which is contained in a letter to all members of the Increased Use Committee of the association, President Callaway indicated that he found considerable prejudice against rubber and fabric belts, due to the fact that leather has a more durable sound than cotton, and again because some unsatisfactory experiences were had with rubber and fabric belts many years ago.

This announcement was issued after a long study had been made of the use of rubber and fabric belts in his mill organization at LaGrange, Ga. This investigation, according to the statement of President Callaway, pointed conclusively to the fact that great economy could be had from using rubber or fabric belts; and since cotton duck is used in their manufacture and consequently offers another opportunity to extend the uses of cotton, he felt a statement on this subject was justified.

The following is a paragraph from a letter sent to all plant superintendents in the Callaway mill organization: "With the exception of gainer belts for winders, 100% replacement of all belts in your mill are to be rubber or fabric, as far as purchases are concerned. The small amount of leather belt on hand can be used, but hereafter every foot of belt bought shall be rubber or fabric, other than the gainer belt referred to."

In his letter to the association, Mr. Callaway states that certain information is essential to obtain the best results with rubber or fabric belts. For instance, he pointed out, when replacing with a leather belt the new belt is cut a fraction shorter than the one taken off, since a certain amount of stretch is to be expected. When replacing with a rubber or fabric belt, he said, the new belt is cut a fraction longer than the belt taken off, since a certain amount of contraction is to be expected.

▸ New Dirigible Takes Much Cotton in Construction

The U. S. Navy's new dirigible "Akron," is covered entirely with cotton. The Cotton-Textile Institute is advised that 36,000 yards of cotton were required to cover it. An idea of the huge size of the airship can be had in the fact that this is 80% more covering than was used on the "Graf Zeppelin" which required 20,000 yards.

A great deal of processing of the fabric was necessary before it was ready for service. When fitted over the metal skeleton of the "Akron" it received a treatment of four coats of cellulose acetate "dope," the last two coats being pigmented with aluminum powder. This treatment tightened the fabric over the frame and the aluminum powder not only gives the silvery appearance to the ship but also acts as a waterproofing and reflector for the rays of the sun.

For the gas cells of the "Akron," there is even more cotton used than in the covering, 56,000 yards being required for this purpose, compared with 40,000 yards used in the "Graf Zeppelin." The fabric used in half of the gas cells was rubberized and the other half treated with gelatin latex, and in both cases a final coating of paraffin was applied. The fabrics are very closely woven, there being 130 threads per inch in the outer covering and 120 threads per inch in the covering for the gas cells.

▸ The Cotton Break and Farm Board's Recommendation

(Continued from page 23)

"In line with above mandate from Congress and in view existing situation, board suggests that you immediately mobilize every interested and available agency in your State, including farmers, bankers, merchants, land owners, and all agricultural educational forces to induce immediate plowing under of every third row of cotton now growing.

"Without question, at present low prices there will be considerable abandonment later in the season, but this will not improve prices during heavy marketing.

"Problem to be solved is to secure abandonment in an organized and orderly fashion which will give farmers a better return on the remainder.

"Board is convinced that such organized reduction immediately done will be more than repaid by increased price received by growers on this and future crops entirely aside from savings by reason of no picking and ginning costs on that part of crop plowed under.

"Board recognizes that this suggestion calls for drastic remedy for serious emergency but commends to you the thought that major operation of this kind rather than attempts at lesser measures is now needed. Board earnestly hopes this proposal which is being sent governors of all cotton producing States will be approved by you and the people of the South and that necessary steps will be immediately taken to put in into effect on basis which will begin reduction throughout South not later than Sept. 1 and complete program not later than Sept. 15.

"If the 10 largest cotton producing States accept and carry out this program this board will do all in its power to support the program and will pledge itself to permit no sales by the Cotton Stabilization Corp. of its present holdings before July 31, 1932, and will urge upon the cotton cooperatives financed by the board the desirability of similar action by them on their stocks of 1930 cotton now held.

"This program, if fully carried out by Southern farmers as well as by ourselves, will mean deduction of total supply by at least 4,000,000 bales and withholding from this year's market of 3,000,000 bales more."

Early reaction in the cotton States to the Farm Board's proposal to destroy one-third of the nation's corp, indicated a strong difference of opinion. Much of the opposition to the plan appeared to be based on the sentimental pride cotton growers take in raising crops. Governor Russell of Georgia refused to comment, pending study of the plan. Prominent Georgia cotton authorities dismissed the idea as "bunk" and "nonsense." Governor Bilbo of Mississippi strongly endorsed the project, but Harry D. Wilson, Louisiana Commissioner of Agriculture, said "no sane planter would let one-third of his crop rot."

Governor Parnell of Arkansas, himself a cotton farmer, will confer before taking a stand. Little Rock bankers said they were convinced farmers generally would not cooperate in the project of curtailment. Governor Murray of Oklahoma, urged that the Farm Board destroy "the 7,000,000 bales of short-bolled and poor grade cotton, and then there would be no congestion." Governor Sterling of Texas supported the curtailment, and credited Governor Bilbo of Mississippi and T. W. Graham of New Albany, with having fathered the idea. North Carolina, through Governor Gardner, pledged support to the Board, but Governor Carlton of Florida suggested storage of the surplus as a counter proposal.

▸ Comparison of Breaking Strengths and End Breakage

(Continued from page 36)

multiplier was 1.26 and a draft of 4.24 was used. The hank roving produced by the intermediate was 1.95. A twist multiplier of 1.24 gave a twist of 1.73 turns per inch to the roving. The draft employed was 5.62.

The speeders produced a 5.28 hank roving having 3.39 T.P.I. The twist multiplier and draft were 1.42 and 5.45 respectively. A 29s yarn having 25.18 T.P.I. was made on the spinning frame by using a draft of 11.93 and a twist multiplier of 4.68.

An analysis of the results of these tests has caused the author to draw the following conclusions: (1) It is possible to reduce spinning qualities by using too close, as well as too open, a setting on the fly frames. (2) The number of ends down per 100 spindles is not a sure indication that the settings employed are the best for spinning purposes. (3) Wider settings than are generally used have given the best results.

It will be seen that Test No. 1, having the closest settings, shows the lowest breaking strength and the third highest end breakage in spinning. Test No. 2 has the best break and decidedly the lowest end breakage. Tests Nos. 3 and 4, having the wider settings, show a small drop in breaking strength and a marked decrease in end breakage.

Exchange Offers Help in Cotton Sale to Germany

The New York Cotton Exchange, in a telegram to President Hoover, has offered to co-operate with the Government in working out details of the proposed sale of cotton to Germany, by appointing a committee of members of the exchange who are familiar with the intricacies of the cotton trade in foreign countries to advise with the Government in this matter. The President has written to the exchange thanking it for its offer of assistance and stating that he believes that the exchange could be very helpful in this connection, and accordingly that he has placed the telegram of the exchange before the Federal Farm Board. The telegram to President Hoover was signed by Philip B. Weld as president of the New York Cotton Exchange.

R. R. Snyder, Berkshire Sales Manager, Retires

R. R. Snyder has retired as sales manager of the Berkshire Knitting Mills, Reading, Pa., after an association of over 19 years with the company, and has been succeeded by Thomas Owen O'Keefe, whose title will be general sales manager, it was announced Thursday by John Nash McCullaugh, general manager of Berkshire. J. Frank O'Keefe has been appointed midwestern sales manager of the company, with offices in the Republic Building, Chicago, and Max K. Bonter has been appointed western sales manager, with offices at Seattle.

Third Golf Tournament for Salesmen in Chemical Trade

The third golf tournament of the Salesmen's Association of the American Chemical Industry is scheduled for Tuesday, Aug. 18, at the Dunwoodie Country Club, Yonkers, N. Y. Tickets will be priced the same as for the July tournament at $5 for members and $7 for guests. These prices include green fees and prize donations. Grant A. Dorland, Noil Chemical & Color Co., New York, is chairman of the entertainment committee.

North Carolina Organizes to Push Use of Cotton

Organization of a North Carolina division of the National Association for the Increased Use of Cotton was effected at a meeting in Gastonia, N. C., Aug. 10. Officers of the new division were elected as follows: Mrs. W. D. Anderson, of Gastonia, president; W. M. McLaurine, Charlotte, N. C., vice-president; W. G. Gaston, treasurer; Fred M. Allen, business manager; Mrs. S. E. Barnwell, Jr., secretary; and A. G. Meyers, chairman of the executive committee.

Among the directors elected were the following: O. M. Mull, vice-president, Cleveland Cloth Mills Co., Shelby, N. C.; A. M. Fairley, vice-president, Waverly Mills, Inc., Laurinburg, N. C.; Kay Dixon, secretary and assistant treasurer, Dixon and Trenton Cotton Mills, of Gastonia; B. B. Gossett, president and treasurer, Chadwick-Hoskins Co., of Charlotte; Mrs. Joseph H. Separk, of Gastonia; and Charles A. Cannon, president, Cannon Mills Co., Kannapolis, N. C.

Mrs. S. E. Barnwell, Jr., who has directed the "Wear Cotton" campaign in the South will be in charge of the new office created by the North Carolina division.

Army Asks Cotton and Serge Bids

The United States Army has asked for bids on the following: 136,000 yd. o.d. serge, 18-oz, 56 to 58 in.; and 1,229,640 yd. khaki cotton, 36½ in., of good middling. In both cases the bids will be opened Sept. 15 by the commanding officer, Philadelphia Quartermaster Depot, Philadelphia.

Egyptian Government Gives Fund to Promote Egyptian Cotton

Cable advices received in New Orleans from Cairo, Egypt, indicate that the Egyptian cabinet, at a recent meeting, decided to appropriate $250,000 for expenditure on publicity to promote new markets for Egyptian cotton.

Schell, Longstreth & Co. Announce Retirement of T. W. Brown, 3rd

Schell, Longstreth & Co. cotton yarns, Philadelphia, has announced that T. Wistar Brown, 3rd, retired from the firm July 31. The business will be continued under the same firm name by Charles S. Schell and B. Wilber Tritle. Mr. Brown was a member of the firm from 1917 to the above date.

U. S. Testing Plans Greensboro, S. C., Laboratory

The United States Testing Co., with laboratories in Philadelphia, Hoboken, Paterson, and Chicago, will establish laboratories Sept. 1 at Greensboro, N. C., according to Allen L. Brassell, sales manager. Mr. Brassell stated that various sites are being considered for office and laboratories and the exact location would be announced shortly.

Greensboro was decided upon for the plant, as it is in the center of the silk mill industry in the Piedmont section of North Carolina and Virginia. Heretofore the mills in that territory have had to have their testing work done in northern cities.

Safety Congress Oct. 12-16 in Chicago

The accident prevention problems of the textile industry will be discussed at the twentieth annual safety congress and exposition, to be held Oct. 12-16, at the Stevens Hotel, Chicago, under the auspices of the National Safety Council. The tentative program follows: Tuesday afternoon, Oct. 13: "Résumé of Year's Activities" by general chairman, E. E. Place of the American Mutual Liability Insurance Company, Boston; "Safety a National Interest" by Walter Humphreys, Association of National Wool Manufacturers; "The Medical Department and Reduced Lost Time" by Dr. R. P. Knapp, medical director, Cheney Brothers, South Manchester, Conn.; Report of nominating committee and election of officers.

Wednesday afternoon, Oct. 14: "Aid in accident prevention from state bureaus" by John P. Meade, director Division of Industrial Safety, Massachusetts Department of Labor and Industries, Boston; "Engineering, Education and Enforcement" by M. B. Dalton, vice-president, Liberty Mutual Insurance Co., Boston; "The Trend of Accidents in the Textile Industry" by Sidney Ingham, chairman, Statistics Committee, Textile Section, National Safety Council.

It is announced that the 197 textile establishments with over 100,000 employees who reported their accident experience to the National Safety Council have shown a reduction of about 19% over the previous year and a reduction of 12% as compared with the 1928 year.

Royal Weaving Strike Failure, Unionist Admits

Subsequent to strike reports which appear on page 38 of this issue, it is learned that the strike at the Royal Weaving Co., Pawtucket, R. I., has been definitely broken. M. C. Frova, superintendent, announced that all box-loom weavers in mills 5 and 8 returned to work at old wage scale. Ann Burlac, organizer of the National Textile Workers Union, admits the strike has failed. Settlements at General Fabrics Corp., Central Falls, and the Taylor Mill, Pawtucket, are expected.

Boston Wool Receipts

Receipts of domestic and foreign wools at Boston, also imports at Philadelphia and New York for the week ended Aug. 8, based upon data compiled by the Department of Agriculture, follow:

	Week Ended Aug. 8	Total to Date 1931	Total to Date 1930
Domestic	9,127,000	197,136,000	203,948,000
Foreign	183,000	29,984,000	45,556,000
Total	9,310,000	227,120,000	249,504,000
IMPORTS AT PRINCIPAL PORTS			
Boston	183,000	29,984,000	45,556,000
Philadelphia	1,188,000	34,482,000	31,865,000
New York	1,666,000	33,107,000	28,826,000
Total	3,037,000	97,573,000	106,247,000

Business News

Sipp-Eastwood Corp., Demonstrates New Creel and Warper

Two new developments, an over-end creel and a high-speed warper, were shown to members of the editorial and business staffs of various textile publications on Tuesday, Aug. 11, at the plant of Sipp-Eastwood Corp., Paterson, N. J. A number of important improvements and refinements have been incorporated in both types of equipment to enable greater production and better quality work at lower operating costs. Complete descriptions of the creel and warper will appear in an early issue of TEXTILE WORLD. Following the demonstration of these machines, the visitors were entertained at a luncheon given by the executives of the Sipp-Eastwood Corp. at the New Jersey Country Club.

Houghton Official Returns From Inspection of Firm's English Plant

Major Aaron E. Carpenter, first vice-president of E. F. Houghton & Co., Philadelphia, lately returned from a two-month stay in Europe, found in talks with English bankers and industrial leaders, a great change of opinion regarding the so-called "dole." Since the dole eliminates bread lines and is equally distributed he finds it in more favor. In the opinion of Major Carpenter the situation is more hopeful in France and England than in America. He learned that there are only 45,000 people out of work in France. Many industrial plants are running on short time, but, there have been few shutdowns. In England, he was told that the ranks of the idle have been thinned by 250,000 since Jan. 1.

During his visit, Major Carpenter inspected the newly constructed Houghton oil manufacturing plant in Trafford Park, near Manchester. E. F. Houghton & Co.'s English plant is being operated by E. F. Houghton & Co. of England, Limited. Edgar Vaughan & Co., Ltd., of Birmingham, will continue to act as distributors for the Houghton line in England, Ireland, and Wales. James S. Crawford & Sons, of Glasgow, also will continue to represent the Houghton line in Scotland.

D. M. Polson, has been appointed representative of the E. F. Houghton Co. of Canada, Ltd., associates of E. F. Houghton & Co., Inc., Philadelphia, textile mill supply house. The Canadian headquarters are in Toronto and there is a branch office in Montreal.

Lundmark Talks on Operation of a Factoring Business

Leon F. Lundmark, general office manager of Commercial Factors Corp., on Aug. 11 gave the fourth in the series of six lectures on factoring which Commercial Factors Corp. is sponsoring at Alexander Hamilton Institute, New York City. Mr. Lundmark's topic, "The Operation of Our Business," covered the entire operating scheme required to conduct a factoring business.

He first covered the steps necessary to take when a new account commences business. Among interesting figures which Mr. Lundmark gave were the following: Commercial Factors Corporation handled 530,363 transactions in the first six months of 1931. This amount is 38% greater than during the same period of 1930. This additional work was accomplished with an increase of only 20% in the number of employees. The average charge passing through Commercial Factors Corp. at present is $103 per invoice, compared to $112 in 1930. Mr. Lundmark pointed out that his company in the first six months of 1931 did 25% more business in dollars, and handled 38% more transactions than during the same period last year, with an increase in pay-roll of only 12%.

Konrad F. Braun, vice-president of Commercial Factors Corp., recently gave the third in a series of six lectures on factoring which Commercial Factors Corp. is sponsoring and which are being held at Alexander Hamilton Institute, New York. Mr. Braun discussed the many things taken into consideration by a credit man in passing upon a customer's requirements.

Shambow Shuttle Officials Return from Foreign Trips

Percy T. Phillips, president of the Shambow Shuttle Co., Woonsocket, R. I., has recently returned from Europe. During his trip on the Continent Mr. Phillips had ample opportunity to visit the textile centers and study the European industry with special reference to shuttles. While shuttle manufacturing abroad in respect to products and processes is in some ways far behind the business in this country, Mr. Phillips believes that he has gained some ideas relative to shuttles that will be of interest and assistance to the American weaving industry.

Another official of the Shambow Shuttle Co., Marcus J. Offers, secretary and treasurer, has just returned from a combined business and pleasure trip to Canada. Both Mr. Phillips and Mr. Offers were encouraged with conditions as they found them abroad. Mr. Phillips reports that textile manufacturing in Europe is enjoying a fair amount of prosperity. Mr. Offers found a distinct improvement in the Canadian market.

Stafford Receivers to Continue Business for the Present

John R. Quarles and Samuel R. Haines, who were appointed receivers for the Stafford Co., Readville, Mass., on July 16, state in a circular letter that for the present the business will be conducted as in the past with the personnel practically unchanged and the same facilities for handling business as heretofore. They assure the company's customers that orders will be handled quickly and accurately and with the same high standard of workmanship.

Westinghouse Appoints New Milwaukee Manager

John J. Stanton, merchandise manager of the northwest district of Westinghouse Electric & Mfg. Co., has been appointed Milwaukee manager of the firm. In his new capacity he has charge of the State of Wisconsin and the upper peninsula of Michigan.

Southern Representative for Abbott Machine Co.

The Abbott Machine Co., Wilton, N. H., manufacturers of the Abbott circulating winder, have announced the appointment of A. S. Thomas as southern representative. Mr. Thomas will make his headquarters at Greenville, S. C. He has had a wide mill experience, having been superintendent, agent and treasurer.

New Books

CHEMICAL PROGRESS IN THE SOUTH, 282 pages, 26 illustrations. Compiled and edited by Division of Chemistry and Chemical Technology, National Research Council, J. E. Mills, chairman, The Chemical Foundation, Inc., 654 Madison Ave., New York.

The facts presented in this book have been compiled to give a clear picture of the progress made in the South in chemical education and in agricultural and industrial chemistry. The clear exposition of the problems now confronting some of the southern industries and the suggestions as to methods for solving these difficulties should be carefully studied by those interested in the industrial expansion of that section of the country. Likewise the summary of recent developments in chemistry in the South indicates not only what can be accomplished, but suggests further opportunities in chemical manufacture.

HANDBUCH DER INTERNATIONALEN KUNST-SEIDE-INDUSTRIE, 1931. 889 pages. Fenanz-Verlay G.m.b.H., Berlin C 2. Price 40 RM.

The third edition of this international artificial silk (rayon) directory brings up to date the information of the production and marketing of synthetic fibers. Among the subjects covered are a summary of the manufacturing methods of the different synthetic fibers, statistics of world consumption by processes; production, exports, and imports by countries; prices of rayon shares; tariff statistics; directory of rayon manufacturers; list of associations connected with the synthetic-fiber industry; companies interested in patent exploitation and experimental work; selling agents; sources of raw materials; manufacturers of rayon machinery; and list of trademarks pertaining to rayon.

THE SILK AND RAYON DIRECTORY AND BUYERS GUIDE OF GREAT BRITAIN, 447 pages, John Heywood, Ltd., Deansgate, Manchester, price 21/s.

The seventh annual edition of this handbook retains all of the features included in previous issues and contains added headings in the buyer's-guide section. The list of world's rayon producers has been brought up to date, and more detailed information than before is furnished about the different companies. The buyer's guide is classified into the following sections: processes; raw materials, yarns; etc., fabrics (woven and knitted); goods, including trimmings, braids, cords, and ribbons; machines and appliances; chemicals and dyestuffs.

SYSTEMS OF WAGE PAYMENT, 131 pages, National Industrial Conference Board, Inc., 247 Park Avenue, New York.

This volume presents the essential features of various wage-payment systems, without in any case recommending or passing judgment on them. Throughout the work the theoretical treatment of the different systems is supplemented by quotations from correspondents which illustrate the actual workings of the plans described. The descriptions have been prepared in a non-technical manner for the use of the business executive rather than for the industrial engineer. Systems of Wage Payment discussed are: the time wage system, the piece wage system, early specialized incentive system; modification of the early incentive system, plans to equalize compensation throughout the plant, and incentive systems applied to group production.